VI. *A Revision of the Oriental* Hesperiidæ. *By* H. J. Elwes, *F.R.S.*, *F.L.S.*, *F.Z.S.*, *and* James Edwards, *F.E.S.*[1]

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[Plates XVIII.–XXVII.]

Although Mr. F. Moore had previously described many genera and species of Hesperiidæ, the majority of which are sound and well characterized, yet this large and difficult group of Butterflies was, perhaps, less known than any other in the Old World before Mr. de Nicéville and Captain Watson began to pay attention to it; and until Captain Watson's paper on the classification of the family in the Proceedings of this Society for 1893 laid down a fair basis for its arrangement, Elwes had not attempted to arrange his own collection, which contains a far greater number of species and specimens from the Oriental region than that of the British Museum, on which Watson based his work.

On proceeding to do so, Elwes found numerous species which Watson had not seen, and which required a detailed examination in order to decide their specific and generic position. This he would not have been able to undertake without the able assistance of Mr. Edwards, who has given all his spare time for nearly three years to the task of working out the large mass of material which has passed through their hands during that period, including much necessary dissection of the genitalia and the comparison of their generic characters with those given by Watson. How far the characters drawn from a careful examination of the male genitalia can be properly used in deciding questions of specific identity or distinction is a point which by some entomologists has been questioned; and a very considerable practice in making this examination, and great experience in estimating the value of the characters observed, are necessary in order to form an opinion on the subject. But those who have most experience and who have devoted most time to this study are, we think, practically agreed that these characters are of great importance and assistance, and the question has been so well stated by Messrs. Godman and Salvin in the 'Biologia Centrali-Americana,' Rhopalocera, vol. ii. p. 245, that we cannot do better than quote their remarks, in which we fully concur.

They say:—"As in the foregoing families, we have examined the male secondary sexual organs and find an almost endless variety of structure. We have not ventured

[1] The Editor of the Society's Publications wishes it to be understood that he is not responsible for the nomenclature used in the present memoir, which deviates in several points from that habitually employed by the Society.—P. L. S.

to use these characters for building up any system of classification, as we consider the time is hardly come for their adoption for any such purpose. But we have found them invaluable in deciding points of specific distinction where the external characters are not clearly defined. In some cases a slight external feature distinguishes wo forms, which is sometimes greatly strengthened by a marked divergence in the male genitalia, and sometimes no difference can be traced in these organs. In the former case a specific difference between two similar forms can safely be conceded, while in the latter the opposite course should be followed."

As regards the arrangement of genera, we have adopted that proposed by Watson in his last paper, "A Key to the Asiatic Genera of the Hesperiidæ," published in the Journal of the Bombay Natural History Society for 1895, which in some respects is an improvement on his earlier paper before referred to. We have been compelled to propose a few new genera and some seventy species; and though probably there are still many additions and corrections to be made to the list, especially in the Malay islands and Indo-Chinese countries, yet we have spared no efforts to procure for examination all the material which Elwes's collection did not previously contain. In doing so we have to acknowledge the very great assistance which has been afforded us by Mr. L. de Nicéville and Captain Watson in India, who have sent us advance copies of all their papers and descriptions. In Europe Dr. Georg Semper, of Altona, has been good enough to lend us authentic specimens of all the species included in his great work 'Die Schmetterlinge der Philippinischen Inseln.' Dr. O. Staudinger has sent us a large number of specimens from Borneo and other Malayan islands, the novelties amongst which he has kindly permitted us to describe. Herr P. C. T. Snellen, of Rotterdam, has been equally liberal with specimens from Java and Sumatra. M. Charles Oberthür has enabled us to examine some of the new and rare forms in his magnificent collection from China, and Mr. Leech has also been most obliging in lending types described in his 'Butterflies of China &c.' and other specimens for examination. The Hon. Walter Rothschild kindly allowed us to select from and describe several species of interest in his collection; and we are indebted to Mr. O. Salvin and Sir G. F. Hampson for advice and assistance in many points of difficulty and for the loan of specimens. Col. Swinhoe has also lent us many of his types and allowed us to describe new species in his collection; and so far as we know there is no collection containing many types to which we have not had access, except that of M. Mabille, which we have not visited [1]. Some species which have been described by the latter and by Plötz we have, in common with Captain Watson, failed to identify, and we have possibly overlooked a few others; yet we think that the material at our disposal has been hitherto unrivalled, and the localities given for

[1] Since the above was written M. Mabille has been kind enough to lend us a number of his types, which we have been able to identify with certainty and put in their proper order; so we do not think that there can exist in Europe, at present, any important sources of information in this family of which we have not availed ourselves.

each species may be relied upon as those of specimens actually in coll. Elwes or examined personally by us. We have not, as a rule, quoted localities given by other authors, because in some cases it is doubtful to what species they refer.

As regards the respective share which the authors have had in this paper, we think it best to say that Edwards alone is responsible for the whole of the drawings and dissections of genitalia and for the conclusions derived from them; he has arranged in the form of analytical tables such of the differential characters of the several species as he found to be diagnostic in the greatest degree, and he has had the principal share in the descriptions of genera and species. Elwes alone is responsible for all the localities, geographical distribution, and questions of specific distinction arising from their consideration.

With regard to the geographical area covered by the paper, though it relates specially to Asia, we have thought it best to take in the Hesperiidæ of Europe, because their male genitalia had not previously been extensively studied, and in some cases this study has led to striking results, but we have not included those of North America because they belong for the most part to the Neotropical region. We have not attempted to deal with the species occurring in the Malayan islands east of Wallace's line, because, although a good many Indian forms occur in them, the Austro-Malayan element is probably predominant, and our knowledge of the Hesperiidæ of the New Guinea Region is too small to enable them to be profitably classified at present.

In the descriptive portion of the paper we have used the Continental system of numbering the veins in preference to that adopted by many English authors, because it seems to us shorter and more convenient. We have adopted a few terms from Mr. Meyrick's recent 'Handbook of British Lepidoptera': thus the *dorsum* is the edge of the wing opposite to the costa, the *termen* the edge of the wing opposite to the base, and the *tornus* is the angle in which the dorsum joins the termen. The *transverse vein*, sometimes called the upper, middle, and lower discocellular nervules, is that which forms the apical boundary of the discal cell. The subcostal and median *segments* are the pieces of the subcostal and median veins which lie between the bases of veins 7–11 and 2–4 respectively; they are numbered from the base: thus the *second median segment* forms the base of cell 2 and so on. The simple vein nearest to the dorsum in both fore and hind wings is called vein 1*a*, and the second vein from the dorsum of the hind wing is called vein 1*b*. With the exception of the discal cell in each wing, which is referred to simply as *the* cell, the name of each cell is taken from that of the vein forming its lower boundary.

With a few unimportant exceptions, this paper will be found to contain a concise statement of the diagnostic characters of all the species of Hesperiidæ hitherto described from the region treated of; although we have not given or quoted descriptions in full, except in the case of newly-described species and a few obscure ones which we have not seen.

Although the Hesperiidæ as a group are very well-marked and easy of recognition, their classification *inter se* is a matter of great difficulty, owing, mainly, to the paucity of index characters. Venation is probably of less assistance here than in any other group of Rhopalocera. The fore wing has a free vein near the costa, another near the dorsum, and a discal cell from which arise ten simple veins; the hind wing has a discal cell giving off six simple veins, a free vein near the costa, and two near the dorsum. The modifications of this type are few in number and slight in character.

Taking the group as a whole, we may divide off—First, *Pyrrhopyge* and its allies, a group characterized by the large blunt recurved club to the antennæ and the cell of the fore wing more than two-thirds as long as the costa; and secondly, *Ismene* and its allies, a group characterized by the porrect and filiform third joint of the palpi. There then remains a vast number of species for the grouping of which no such satisfactory characters are available. They may, however, be divided into two series according to the position and direction of vein 5 in the fore wing, in which particular they may be regarded as conforming to one of two types: the first, exemplified by *Thanaos tages*, in which vein 5 of the fore wing is straight and therefore practically parallel to vein 6; and the second, exemplified by *Augiades sylvanus*, in which the basal third of vein 5 is decurved towards the origin of vein 4, and consequently recedes to that extent from vein 6. This basis of subdivision is not invariably well-marked, but that circumstance does not give rise to any real difficulty, because in doubtful cases the correct position of a given species is determinable from other considerations.

All the specimens, dissections, and drawings of genitalia, including a great number not figured, are open to the examination of any naturalist who may be interested in the subject.

We have not considered it necessary to give a full synonymy of the species dealt with, but only those references which are original or important.

Orthophœtus.

Pteroxys, Watson, P. Z. S. 1893, p. 29, nom. præocc. Type *phanæus*, Hew.
Orthophœtus, Watson, Jour. As. Soc. Beng. 1895.

In defining this genus Watson says "fore wing: ♂ with a costal fold"; this is true of *lidderdali*, Elwes, and *lalita*, Dohy., but not of *phanæus*, Hew., which, however, he gives as the type. In the latter species as well as *lidderdali*, Elwes, and *lalita*, Dohy., the third joint of the palpi is concealed; but it would be better to extend the definition of the genus so as to include the *Celænorrhinus omeia* of Leech, a species which is very closely allied to the three former, but has the third joint of the palpi distinct; there is no costal fold in the male of *omeia*, Leech.

The species might be thus distinguished:—

1 (6). Third joint of palpi concealed. Hind wing below with a dark discal spot.
2 (3). No costal fold in the male. Upperside fusco-fulvous. Postmedian series of spots on hind wing above small, black . . . . . *phanæus*, Hew.
3 (2). Male with a costal fold.
4 (5). No pale spots in cells 4 and 5 of fore wing above. Upperside bright fulvous. Postmedian series of spots on hind wing above black, with or without white centres . . . . . *lalita*, Dohy.
5 (4). Fore wing above with pale spots in cells 1–8. Postmedian series of spots on hind wing above black, with yellow edges . . . . . *lidderdali*, Elwes.
6 (1). Third joint of palpi distinct. Hind wing below plain brown. No costal fold in the male . . . . . *omeia*, Leech.

! [1] ORTHOPHŒTUS PHANÆUS.

Eudamus phanæus, Hewitson, Descr. Hesp. p. 14 (1867).
Casyapa phanæus, Distant, Rhop. Mal. p. 386, pl. xxxv. fig. 18 (1886); Watson, Hesp. Ind. p. 109 (1891).

In point of colour Distant's figure represents *O. lalita* rather than *O. phanæus*, but the Perak specimens in my coll. agree with the Bornean type.

Hab. Perak, Pulo Laut (*Doherty*); Labuan (*coll. Stgr.*); Selesseh, Sumatra (*Martin in coll. Rothschild*).

! ORTHOPHŒTUS LALITA.

Erionota? *lalita*, Doherty, Jour. As. Soc. Beng. 1886, p. 263.
Casyapa phanæus, Elwes, P. Z. S. 1892, p. 657.

Until Mr. Edwards separated this from the Bornean species by the costal fold, Elwes had confused it with *O. phanæus*. It is, as he pointed out, much yellower in colour, but has similar markings. It has only been taken, so far as we know, by Doherty in the Chittagong and Karen hills.

Hab. Chittagong (*Doherty*); E. Pegu (*Doherty*).

ORTHOPHŒTUS LIDDERDALI. (Plate XX. fig. 18, ♂.)

Chæticnema? *lidderdali*, Elwes, Trans. Ent. Soc. Lond. 1888, p. 459.
Casyapa lidderdali, Watson, Hesp. Ind. p. 109 (1891).

The type in the British Museum remains unique; but as Dr. Lidderdale's collection was made at Buxa in Bhutan and Darjeeling it is almost certainly from one of those localities, probably the former. We append further particulars of this specimen, supplementary to the original description cited above.

♂ with a costal fold. Upperside: fore wing warm brown, with ten ochreous hyaline patches placed as follows:—one across the end of the cell, one each in cells 2–8, and

[1] This sign is prefixed to the names of the species which are in Mr. Elwes's collection.

two, one above the other, near the middle of cell 1 *a*; an ochreous line along vein 12 and also along the upper and lower margins of the cell, an ochreous line bordering cell 2 within from the base as far as the hyaline spot, and an ochreous streak in the base of cells 9 and 10; hind wing warm brown, basal two-thirds clothed with long brownish-yellow hairs, a postmedian series of eight elongate oval, velvety black, yellow-edged spots, placed as follows:—two in cell 1*b* and one in each of cells 2–7. Fringe of the fore wing brownish grey, of the hind wing yellowish grey. Thorax concolorous; abdomen brown, hind margin of the segments narrowly pale Underside as above, save that there is on the hind wing a dusky oblong spot next the transverse vein.

Hab. Bhutan? (*Lidderdale*).

! Orthophœtus omeia.

Celænorrhinus omeia, Leech, Butt. China &c. p. 572, pl. xxxviii. fig. 5, ♂ (1894).

Leech suggests that a new genus is necessary for this species; but, as it differs from *Orthophœtus* chiefly by the form of the palpi, we do not agree with him.

Hab. Omei-shan, W. China.

Calliana.

Calliana, Moore, P. Z. S. 1878, p. 686; Watson, P. Z. S. 1893, p. 31. Type *pieridoides*, Moore.

The single species in this genus is well distinguished by its facies. The antennæ in the male are about half as long as the costa, the club slender, the apiculus gradual, about half as long as the club.

Calliana pieridoides.

Calliana pieridoides, Moore, P. Z. S. 1878, p. 687, pl. xlv. fig. 2, ♂; de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 377, pl. G. fig. 25, ♀.

Hab. Khasia Hills (*Hamilton*); Margherita, Upper Assam (*Doherty*).

Capila.

Capila, Moore, P. Z. S. 1865, p. 785; Watson, P. Z. S. 1893, p. 30. Type *jayadeva*, Moore.

Moore founded this genus for his *Ismene jayadeva*, but the insect which he described as the female of *jayadeva* is really the male of another species for which we adopt the name *C. zennara*, Moore, in accordance with a suggestion of Captain Watson. The females of these two species were the originals of the two sexes of Moore's genus *Pisola*.

We include here *Rhopalocampta translucida*, Leech, which, however, may be not congeneric with the other species.

The distinctive characters of the species under consideration may be thus expressed:—

1 (6). With a pencil of long hairs at the base of hind tibiæ (*i. e.* males).
2 (5). Dark brown above, with white rays in the cells of both wings.
3 (4). Crown, thorax, and base of wings sordid orange . . . . . *jayadeva*, Moore.
4 (3). Crown, thorax, and base of wings sordid brown . . . . . *zennara*, Moore.
5 (2). Dark brown above; disc of both wings transparent sordid white, crossed by dark veins . . . . . *translucida*, Leech.
6 (1). No pencil of long hairs at base of hind tibiæ (*i. e.* females).
7 (8). Hind wing above brown, with two grey lines in the outer half of each cell. *jayadeva*, Moore.
8 (7). Hind wing above plain brown . . . . . *zennara*, Moore.

The female of *C. translucida*, Leech, is unknown.

! Capila jayadeva.

Ismene jayadeva, Moore, Cat. Lep. E.I. C. i. p. 248 (1857).
Capila jayadeva, Moore, P. Z. S. 1865, p. 785, pl. xlii. fig. 3 ♂, 4 ♀; Watson, Hesp. Ind. p. 25 (1891).

Hab. Sikkim (*Möller*); Naga Hills, E. Pegu (*Doherty*).

It will be impossible to work out the distribution of this species and the next correctly without an examination of the actual specimens referred to by various writers in their local lists, because the authors of such lists, in recording *Capila jayadeva* and *Pisola zennara*, have but rarely mentioned the sex of their specimens.

! Capila zennara.

♂ = *Capila jayadeva*, Moore, ♀, P. Z. S. 1865, p. 785.
♀ = *Pisola zennara*, Moore, ♀, t. c. p. 786.

Hab. Sikkim (*Möller, Elwes*); E. Pegu (*Doherty*).

Capila translucida.

Rhopalocampta translucida, Leech, Butt. China &c. p. 642, pl. xxxix. fig. 11, ♂ (1894).

Hab. Omei-shan, W. China (*Leech*).

We are indebted to Mr. Leech for the opportunity of examining his unique example of this species.

Crossiura.

Crossiura, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1892, p. 350. Type *pennicillatum*, de Nicév.

This genus, in our opinion, might well be merged in *Orthophœtus*, where the single species would follow *omeia*, Leech. The fore wing in both sexes is banded as in the female of *Capila*, and there is in addition a series of small white spots, one in each of cells 4 to 8 or 5 to 8, independent of sex; the male has no costal fold, but the dorsum of the hind wing is folded under, and the tornus bears, near the end of vein 1*b*, a tuft of long hairs, and there is also a fringe of long hairs to that part of the

wing which lies below vein 1*b*. Mr. de Nicéville (Jour. Bomb. Nat. Hist. Soc. 1892, p. 351) speaks of the anal angle (tornus) being fringed with long stout setæ; this is misleading, as the hairs forming the tuft and fringe are not more bristle-like than those which form the tibial pencil in many species of Hesperiidæ. These observations are, in part, based on an examination of a male specimen of *C. pennicillatum*, de Nicév., ex coll. E. Swinhoe.

CROSSIURA PENNICILLATUM.

Crossiura pennicillatum, de Nicéville, t. c. p. 351, pl. J. fig. 1 ♂, 2 ♀.

Hab. Khasia Hills, where it seems rare or very local.

ACHALARUS.

Achalarus, Scudder, Syst. Rev. Am. Butt. p. 50 (1872); Watson, P. Z. S. 1893, p. 33. Type *lycidas*, Sm. Abb.

Lobocla, Moore, Jour. As. Soc. Beng. 1884, p. 51. Type *liliana*, Atkinson.

Vein 5 in the hind wing is obsolete in *lycidas* and most of the American species, but well-developed in *liliana* and all the Eastern species, as well as some of the American.

The species known to us we distinguish as follows :—

1 (2). Fore wing above: white discal band reaching vein 1 *a*, white spot in cell 3 filling up the base of that cell . . . . . *liliana*, Atkinson.

2 (1). Fore wing above: white discal band not reaching vein 1 *a*, white spot in cell 3 usually not filling up the base of that cell.

3 (6). Fore wing above: white spot in cell 3 contiguous to that in cell 2.

4 (5). Clothing of second joint of palpi grey. Hind wing below: terminal grey band irregular, not wide enough to reach the narrow subterminal pale band . . . . . *bifasciatus*, Brem. & Grey.

5 (4). Clothing of second joint of palpi blackish. Termiual grey band on hind wing below suffused, broad, regular, reaching about half the length of cell 3 . . . . . *simplex*, Leech.

6 (3). Fore wing above: white spot in cell 3 not touching that in cell 2.

7 (12). Dark spots on the hind wing below very prominent, much darker than the ground-colour.

8 (11). Fore wing below: hyaline spot in cell 5 not touching that in cell 6.

9 (10). Hind wing below: subterminal dark spot across cells 1*b* and 2 as wide where it is cut short by vein 3 as where it is crossed by vein 2, the pale border of its inner edge straight, that of its outer edge sinuate, receding from the termen as it approaches vein 3. . . . . *proximus*, Leech.

10 (9). Hind wing below: subterminal dark spot across cells 1 *b* and 2 ending in a point near the middle of vein 3, the pale border of its inner edge evenly convex, that of its outer edge nearly parallel with the termen and continuous with the pale outer border of the spots in cells 3 and 4–5 . . [1]*frater*, Ob.

11 (8). Hyaline spots in cells 4–8 of fore wing forming a continuous series . . . . . *germanus*, Ob.

12 (7). Dark spots on hind wing below not very prominent, but little darker than the ground-colour. Otherwise very similar to *A. germanus* . . . . . *nepos*, Ob.

! ACHALARUS LILIANA.

Plesioneura liliana, Atkinson, P. Z. S. 1871, p. 216, pl. xii. fig. 2.
Lobocla liliana, Watson, Hesp. Ind. p. 157 (1891).
Lobocla casyapa, Moore, Jour. As. Soc. Beng. 1884, p. 52; Watson, t. c. p. 158.

Hab. Khasia (*Hamilton*); E. Pegu (*Doherty*); N.W. Himalaya (*Lang*).

A specimen of *A. casyapa* from Moore is marked with the locality Mynpoorie, but as this is on the plains of the N.W. Provinces, while Lang and Reed have both taken it in the Himalaya, I doubt its correctness. This specimen, notwithstanding its widely separated habitat, is inseparable from *liliana*.

! ACHALARUS BIFASCIATUS.

Eudamus bifasciatus, Bremer & Grey, Schmett. N. China's, p. 10, pl. iii. fig. 1 (1853); Oberthür, Étud. d'Ent. xi. pl. vi. fig. 47 (1886).
Goniloba bifasciatus, Ménétriés, Mus. Petr., Lep. i. pl. v. fig. 3 (1855).
Achalarus bifasciatus, Leech, Butt. China &c. p. 560 (1894).
Achalarus bifasciatus, var. *contractus*, Leech, l. c. pl. xxxviii. fig. 9, ♂.

Hab. Central and Western China (*Pratt*); Korea (*Leech*); Amurland (*Jankowsky*).

! ACHALARUS SIMPLEX.

Eudamus simplex, Leech, Entom. xxiv. Suppl. p. 58 (June 1891).
Eudamus gener, Oberthür, Étud. d'Ent. xv. p. 18, pl. i. fig. 2 (July *nec* June 1891).
Achalarus simplex, Leech, Butt. China &c. p. 561, pl. xxxviii. fig. 12, ♂ (1894).

Hab. Western China (*Pratt*).

! ACHALARUS PROXIMUS.

Eudamus proximus, Leech, Entom. xxiv. Suppl. p. 59 (June 1891).
Achalarus proximus, Leech, Butt. China &c. p. 560, pl. xxxviii. fig. 7, ♂ (1894).

Hab. Ta-tsien-lo, Moupin, W. China (*coll. Oberthür*).

[1] In *A. proximus* the extreme base of cell 7 on the hind wing below is whitish; this point is not indicated in the figure of *A. frater*, but it is not certain that it had not disappeared from the specimen figured as the result of rough handling.

Achalarus frater.

Eudamus frater, Oberthür, Étud. d'Ent. xv. p. 18, pl. i. fig. 3 (July *nec* June 1891).

Hab. Yunnan (*Delavay, fide Oberthür*).

! Achalarus germanus.

Eudamus germanus, Oberthür, Étud. d'Ent. xi. p. 26, pl. vi. fig. 48 (1886).
Achalarus germanus, Leech, Butt. China &c. p. 561 (1894).

Hab. Ta-tsien-lo (*Biet*); Pu-tsu-fong, Wa-ssu-kow, 5000–8000 feet, June and July (*fide Leech*).

! Achalarus nepos.

Eudamus nepos, Oberthür, l. c. pl. vi. fig. 49.
Achalarus nepos, Leech, l. c.

Hab. Ta-tsien-lo (*Biet*); Pu-tsu-fong, 8000 feet, July (*Leech*).

Hantana.

Hantana, Moore, Lep. Cey. i. p. 179 (1881); Watson, Hesp. Ind. p. 144 (1891); id. P. Z. S. 1893, p. 37. Type *infernus*, Felder.

The type of this monotypic genus is well distinguished among its allies by the dark purple-brown colour of the upperside and the absence of hyaline spots except four on the fore wing, namely, one in the cell next the apical fourth of its upper edge, and one each (small and roundish) in cells 6, 7, and 8. The hyaline spot in the cell of the fore wing has a tendency to disappear, and the base of cell 4 is twice as long as the base of cell 5.

! Hantana infernus.

Eudamus infernus, Felder, Verh. zool.-bot. Gesellsch. Wien, 1868, p. 283.
Hantana infernus, Moore, Lep. Cey. i. p. 179, pl. lxviii. fig. 6 (1881); Watson, Hesp. Ind. p. 145 (1891).

Hab. Ceylon (*Mackwood*).

Charmion.

Charmion, de Nicéville, Jour. As. Soc. Beng. 1894, p. 48. Type *ficulnea*, Hew.

Antennæ more than half as long as costa, somewhat shorter in the female, club slender, apiculus robust, about half as long as the club. Palpi appressed, densely scaled, third joint concealed. Fore wing: vein 5 straight, nearer 6 than 4, vein 2 from the basal fourth of the lower margin of the cell. No alar sex-mark in the male. Tibial epiphysis present. Species fuliginous brown, with an oblique white median band on fore wing, abbreviated at each end.

In *C. ficulnea* the hind tibiæ of the male are thickly fringed on their basal half, and have at the base a thick tuft of long ochreous hairs nearly as long as the joint itself.

! CHARMION FICULNEA.

Hesperia ficulnea, Hewitson, Descr. Hesp. p. 37 (1868).
Plesioneura signata, Druce, P. Z. S. 1873, p. 360, pl. xxxiii. fig. 8.
Plesioneura leucographa, Plötz, Berl. ent. Zeits. xxvi. p. 262 (1882).
Charmion ficulnea, de Nicéville, Jour. As. Soc. Beng. 1894, p. 49.

Hab. Perak (*Doherty*); Kina Balu, Borneo (*Waterstradt*); Sumatra (*Martin in coll. Rothschild*).

CHARMION TOLA.

Plesioneura tola, Hewitson, Ann. & Mag. Nat. Hist. ser. 5, vol. i. p. 340 (1878).
Plesioneura zawi, Plötz, Berl. ent. Zeits. 1885, p. 225.
Plastingia? plesioneuræ, Staudinger, Ex. Schmett. p. 299, pl. C, ♀ (1888).

This species is distinguished from the preceding by having a small roundish projection of the white band on the fore wing reaching about halfway across cell 1 *a*. Hewitson's type is a male. The type of *P. zawi*, Plötz, lent to me by Dr. Staudinger is a female.

Dr. Staudinger concurs in our opinion that his *P. plesioneuræ* is synonymous with *C. tola*.

Hab. Tondano (*fide Hewitson*); Minahassa, Celebes (*fide Staudinger*).

CELÆNORRHINUS.

Celænorrhinus, Hübn. Verz. p. 106 (1816); Watson, P. Z. S. 1893, p. 49. Type *eligius*, Cr.
Gehlota, Doherty, Jour. As. Soc. Beng. 1889, p. 131. Type *sumitra*, Moore.

Species large and robust; dorsum of the fore wing usually longer than the termen. Fore wing with several white spots of which some form an oblique discal band, or with yellow spots forming an oblique discal band, or with a continuous yellow oblique discal band. Hind wing rounded, its termen as a rule not evidently excavated before the tornus, in several species much spotted with yellow. Antennæ half as long as the costa or longer, club slender, apiculus gradual, the shaft sometimes pure white in front. Palpi appressed, third joint suberect. Vein 5 of the fore wing straight, arising as a rule distinctly nearer to vein 6 than to vein 4, but in *flavocincta*, de Nicév., intermediate between the two. Hind tibiæ with two pairs of spurs, and bearing a hair-pencil in the male.

The different phases of this large genus are well exemplified by *sumitra*, Moore, *leucocera*, Koll., and *aurivittata*, Moore, respectively.

Though de Nicéville so recently as 1889 gave an elaborate revision of this genus [1],

[1] Jour. Bomb. Nat. Hist. Soc. 1889, p. 177.

yet we have in many cases been obliged to dissent from the opinions he arrived at, probably because the material at our disposal is much more complete than his at the time he wrote.

The following is a list of the species known to us; the value of the characters relied on for their discrimination has been carefully considered and supplemented by an examination of the male genitalia of numerous specimens:—

1 (58)	Hind wing below, not brown with a narrow yellow spot on the transverse vein, its fringes not pale unspotted yellow.	
2 (55).	Fore wing with a pale spot in each of cells 6, 7, and 8.	
3 (14).	Fore wing with a small pale spot near the base of cell 1 *a*[1].	
4 (13).	Macular band on fore wing pure white.	
5 (8).	Basal spot in cell 1*a* of fore wing yellow.	
6 (7).	Male: shaft of antennæ white in front throughout; hind wing distinctly produced on vein 1 *b*. Expanse 62 mm.	*pero*, de Nicév.
7 (6)	Male: shaft of antennæ white in front only near the base of the club; hind wing rounded, not produced on vein 1 *b*. Expanse 49 mm.	*pulomaya*, Moore.
8 (5).	Basal spot in cell 1 *a* of fore wing white.	
9 (10).	Hind wing below with two well-defined yellow spots in the middle of the cell, the lower one joined to the base by a yellow streak	*maculosa*, Feld.
10 (9).	Hind wing below with only one pale spot in the middle of the cell.	
11 (12).	Hind wing below with the pale spots orange-yellow; fringe orange-yellow, scarcely interrupted with darker . . .	*aspersa*, Leech.
12 (11).	Hind wing below with the pale spots cream-coloured; fringe chequered	*consanguinea*, Leech.
13 (4).	Macular band on fore wing above dirty white. Upperside grey-brown, fringes chequered	*ambareesa*, Moore.
14 (3).	Fore wing with no pale spot near the base of cell 1 *a*.	
15 (16).	Hind wing below (except a brown terminal band) orange-yellow, with several (about 9) black spots	[2]*flavocincta*, de Nicév.
16 (15).	Hind wing not as in 15.	
17 (34).	Fore wing above with the pale macular band pure white.	
18 (27).	Fore wing above; extreme base of cell 3 not filled up with white.	
19 (26).	Hind wing above not conspicuously clothed with brownish-yellow scales and hairs almost to the termen.	

[1] Very rarely this spot is traceable in the female of *leucocera*, Koll.

[2] This species will probably be found to belong to the group (par. 3 *supra*) which has a small pale spot near the base of cell 1 *a* of the fore wing, as such a spot is indicated in a male specimen from the Möller collection; the point, however, is of no consequence, as the species is distinguished from all its congeners by the pattern and coloration of the hind wing below.

20 (21). Pale spots on hind wing below large, numerous, and orange-yellow; shaft of antennæ in the male not entirely white in front . . . . . *sumitra*, Moore.

21 (20). Pale spots on hind wing below neither large, numerous, nor orange-yellow.

22 (25). Pale spots on hind wing below small, stramineous, sharply defined, variable in number, sometimes reduced to one only next the transverse vein.

22ª (22ᵇ). Shaft of antennæ in the male spotted with white in front . *maculicornis*, n. sp.

22ᵇ (22ª). Shaft of antennæ in the male entirely white in front.

23 (24). Pale spot in cell 2 of fore wing as wide as or wider than high. Fore wing broader and less pointed . . . . . *leucocera*, Koll.

24 (23). Pale spot in cell 2 of fore wing at least one and a half times as high as wide, its inner and outer edges both straight. Fore wing narrower and more pointed, termen straight and forming an angle of about 110° with the dorsum . *leucocera* var. *angustipennis*.

25 (22). Pale spots on hind wing below suffused and indistinct, or entirely wanting. Shaft of antennæ in the male not entirely white in front . . . . . *spilothyrus*, Feld.

26 (19). Hind wing above clothed throughout with brownish-yellow scales and hairs except a narrow terminal space . . . *chamunda*, Moore.

27 (18). Fore wing above: extreme base of cell 3 filled up with white.

28 (33). Fore wing above with one or two white spots in cell 1 *a*.

29 (30). Upperside blackish brown; fringe of the hind wing brown, not chequered . . . . . *balukinus*, n. sp.

30 (29). Fringe of the hind wing chequered.

31 (32). Upperside grey-brown, white spot in cell 2 of fore wing subrhomboidal or irregular, always straight on the inner edge . . . . . *nigricans*, de Nicév.

32 (31). Upperside blackish brown, white spot in cell 2 of fore wing irregularly roundish . . . . . *orbiferus*, n. sp.

33 (28). Fore wing above without any white spot in cell 1 *a* nor in cells 4 and 5 . . . . . *asmara*, Butl.

34 (17). Fore wing above with the pale band yellowish white, yellow, or orange-yellow.

35 (48). Pale spot in cell 1 *a* of fore wing hyaline.

36 (37). Pale spot in cell 1 *a* of fore wing reaching to vein 1 *a* . *tibetana*, Mab.

37 (36). Pale spot in cell 1 *a* of fore wing not reaching to vein 1 *a*.

38 (47). Pale spot in cell 3 of fore wing filling up the extreme base of that cell.

39 (46). Pale spot in cell 1 *a* of fore wing subquadrate or irregular, joining that in cell 2 near its lower outer angle.

40 (45). Pale spot in cell 1 *a* of fore wing not produced into a tooth at its inner lower angle.

41 (44). Pale spot in cell 2 of fore wing reaching inwardly much beyond the base of vein 3.

42 (43). Expanse 38 mm. Tegumen and clasp as in figures 1, 1 *a*, 1 *b*, Plate XXII. . . . . *dhanada*, Moore.

43 (42). Expanse 32 mm. Tegumen and clasp as in figures 2, 2 *a*, Plate XXII. . . . . *andamanica*, W.-M. & de Nicév.

44 (41). Pale spot in cell 2 of fore wing not reaching inwardly beyond the base of vein 3. . . . . *inæqualis*, n. sp.

45 (40). Pale spot in cell 1 *a* of fore wing produced into a large tooth at its lower inner angle . . . . . *dentatus*, n. sp.

46 (39). Pale spot in cell 1 *a* of fore wing small, punctiform, joining that in cell 2 near its half length . . . . . *fulvescens*, n. sp.

47 (38). Pale spot in cell 3 of fore wing not filling up the extreme base of that cell . . . . . *saturatus*, n. sp.

48 (35). Pale spot in cell 1 *a* of fore wing opaque.

49 (52). Fore wing with the pale band deep orange-yellow, practically unicolorous throughout, *i. e.* the part in cells 2 and 3 and that across the cell are semitransparent, but do not differ appreciably in tint from the other parts.

50 (51). Fore wing: breadth of the pale band where it crosses the cell equal to about one seventh of the length of the costa, its outer edge regular, not broken by the projection of the pale spot in cell 3 . . . . . *cameroni*, Dist.

51 (50). Fore wing: breadth of the pale band where it crosses the cell equal to about one fifth of the length of the costa, its outer edge broken by the projection of the pale spot in cell 3 . . . . . *lativittus*, n. sp.

52 (49). Fore wing with the pale band pale yellow in cells 2 and 3 and across the cell, distinctly stronger in colour in cell 1 *a* and next the costa.

53 (54). Fringe of hind wing chequered . . . . . *affinis*, n. sp.

54 (53). Fringe of hind wing brown . . . . . *aurivittata*, Moore.

55 (2). Fore wing above with a yellow oblique postmedian band, but no pale spot in cells 6, 7, or 8. Hind wing above brown.

56 (57). Hind wing below brown, basal half yellow-brown by reason of a thick clothing of yellow scales, a feeble suffused pale spot next the transverse vein, and a suffused yellow spot at the apex of cell 1 *b* . . . . *ladana*, Butl.

57 (56). Hind wing below plain brown . . . . . *batchianus*, n. sp.

58 (1). Hind wing below brown, with a narrow yellow spot on the transverse vein; fringe pale yellow, unspotted . . . *badia*, Hew.

! Celænorrhinus pero.

Celænorrhinus pero, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 183, pl. B. fig. 12, ♂; Elwes, P. Z. S. 1892, p. 660.

Hab. Naga Hills (*Doherty*).

! Celænorrhinus pulomaya.

Plesioneura pulomaya, Moore, P. Z. S. 1865, p. 787.
Celænorrhinus lucifera, Leech, Butt. China &c. p. 571, pl. xxxix. fig. 5, ♀ (1893–4).

Hab. Himalayas from Kangra to Sikkim, Naga Hills (*Doherty*); Moupin (*fide Leech*).

! Celænorrhinus maculosa.

Pterygospidea maculosa, Felder, Reise 'Novara,' Lep. iii. p. 528, pl. lxxiii. fig. 7, ♂ (1867).
Celænorrhinus maculosa, Leech, Butt. China &c. p. 569, pl. xxxix. fig. 2, ♂.

Hab. Central and Western China (*Pratt*).

! Celænorrhinus aspersa.

Celænorrhinus aspersa, Leech, Entomologist, xxiv. Suppl. p. 61 (1891); id. Butt. China &c. p. 571, pl. xxxix. fig. 4, ♂ (1893–4).
Celænorrhinus clitus, de Nicév. Jour. Bomb. Nat. Hist. Soc. 1891 (published 2 Feb. 1892), p. 378, pl. G. fig. 26, ♂; Elwes, P. Z. S. 1892, p. 660.

Hab. Naga Hills, Bernardmyo (*Doherty*); Western China (*fide Leech.*) The type of *clitus* is in coll. Elwes.

! Celænorrhinus consanguinea.

Celænorrhinus consanguinea, Leech, Entomologist, xxiv. Suppl. p. 61, 1891; id. Butt. China &c. p. 570, pl. xxxix. fig. 3, ♂.

Hab. Central and Western China; Eastern Tibet (*Pratt*, *Kricheldorf*).

! Celænorrhinus ambareesa.

Plesioneura ambareesa, Moore, P. Z. S. 1865, p. 788; de Nicéville, Jour. As. Soc. Beng. vol. li. p. 87, pl. x. fig. 9, ♀ (1883).

Hab. Western Ghats from Mahableshwar to Goa; Nilgiris (*Swinhoe*, *Hampson*).

! Celænorrhinus flavocincta.

Plesioneura flavocincta, de Nicéville, P. Z. S. 1887, p. 464, pl. xl. fig. 9, ♀.

Hab. Sikkim (*Knyvett*).

! Celænorrhinus sumitra.

Plesioneura sumitra, Moore, P. Z. S. 1865, p. 787.

Celænorrhinus pyrrha, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 181, pl. B. fig. 11, ♀.
Celænorrhinus patula, de Nicéville, t. c. p. 182, pl. B. fig. 4, ♀.
Celænorrhinus plagifera, de Nicéville, t. c. p. 182, pl. B. fig. 13, ♀.
Celænorrhinus pluscula, Leech, Butt. China &c. p. 571, pl. xxxix. fig. 6, ♀ (1893–4).

Hab. Sikkim (*Elwes*); Naga Hills, Bernardmyo (*Doherty*); China (*fide Leech*).

! Celænorrhinus maculicornis, n. sp. (Plate XVIII. fig. 8, ♂.)

♂. This species may be distinguished from *C. leucocera* by reason that the upperside or front of the shaft of the antennæ in the male is minutely and regularly spotted with black and white. This might be considered a trivial and insufficient character, were it not for the fact that the male of *C. leucocera*, whatever may be the state of the spotting of the wings, always has the upperside or front of the shaft of the antennæ continuously pure white from the base to the apex.

There are in coll. Elwes more than twenty males of *C. leucocera* from various localities, and we have examined at least as many more in other collections without finding any trace of a tendency to spotting on the front of the shaft of the antennæ. The relationship of *C. maculicornis* to *C. leucocera* is quite different from that of *C. leucocera* var. *angustipennis*; the latter being separated from *C. leucocera* by differences in the spotting and shape of the wings, which are distinctly variable in *C. leucocera*; whilst the character by which we separate *C. maculicornis* is one which proves to be constant in *C. leucocera*. The male genitalia do not afford material for its separation from *C. leucocera* or *C. sumitra*.

Hab. Shillong, Khasias, 6400 feet (*Elwes*); ? Kumaon ? (*fide Doncaster* ? Khasias).

Described from two males in coll. Elwes. It seems probable that this species is passed over in collections as the female of *C. leucocera*, which has brown antennæ with a broad white band on the club. We do not know the female of *C. maculicornis*.

! Celænorrhinus leucocera.

Hesperia leucocera, Kollar, in Hügel's 'Kaschmir,' vol. iv. p. 454, pl. xviii. figs. 3, 4, ♀ (1848).
Plesioneura putra, Moore, P. Z. S. 1865, p. 788.
P. leucocera, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 257.
P. munda, Moore, Jour. As. Soc. Beng. 1884, p. 48.
P. leucocirca, Elwes, Trans. Ent. Soc. Lond. 1888, p. 462.
Celænorrhinus putra, Watson, Hesp. Ind. p. 139 (1891).
C. munda, Watson, l. c.

Hab. N.W. Himalaya (*Young, Hocking*); Sikkim, Khasias (*Elwes*); Nagas, Burmah, Bali (*Doherty*); Andamans (*de Roepstorff*); Nilgiris (*Hampson*); C. China (*Pratt*); Java (*Fruhstorfer*).

A common and variable species. The type of *putra*, which is in the British Museum, is from Java.

Var. ANGUSTIPENNIS, nov.

This form, which is apparently confined to W. Java, is readily distinguished by the characters given in the table above, and particularly by the greater length of the costa of the fore wing in proportion to the dorsum.

Hab. Preanger, West Java, *circa* 5000 feet (*Piepers*); Sukabumi, 2000 feet (*Fruhstorfer*).

Var. BRAHMAPUTRA, Stgr. MS.

This also is a long-winged form, from Kina Balu, Borneo (*Waterstradt*), and wants the white spots in cells 4 and 5 on the fore wing above. The hind wing above is very slightly spotted (in the male) or without spots (in the female).

All the insular forms of *leucocera* appear to be of a darker colour and less spotted on the hind wing above than those from Continental India.

! CELÆNORRHINUS SPILOTHYRUS.

Eudamus spilothyrus, Felder, Verh. zool.-bot. Gesellsch. Wien, 1868, p. 283, ♂.
Plesioneura ruficornis, Mabille, Ann. Soc. Ent. Belg. xxi. p. 32 (1878).
Plesioneura spilothyrus, Moore, Lep. Cey. vol. i. p. 179, pl. 67. figs. 4, 4 *a* (1880–81).
? (? *var. dist.*) *Plesioneura fusca*, Hampson, Jour. As. Soc. Beng. 1888, p. 367.

Hab. Java (*Staudinger*); N. Canara (*Aitken*); Malabar (*Vidal*); Nilgiris (*Hampson*); Ceylon (*Green*).

We have received three specimens from Bali and one from Arjuno, Java, collected by Mr. Doherty, which may constitute a distinct local race; they are, however, only distinguishable from *spilothyrus* by the almost complete disappearance of the spots on the hind wing below, and agree exactly with a specimen of his *P. ruficornis* sent by M. Mabille; they have the costal spot of the fore wing white instead of yellow, thus resembling South Indian specimens (*P. fusca*, Hampson) in which this spot is usually but not always white, and not Ceylon specimens in which it seems to be always yellow.

! CELÆNORRHINUS CHAMUNDA.

Plesioneara chamunda, Moore, P. Z. S. 1865, p. 788.

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); Nagas (*Doherty*); Shan Hills (*Manders*).

! CELÆNORRHINUS BALUKINUS, n. sp. (Plate XVIII. fig. 1, ♂.)

Plesioneura balukina, Staudinger, *in litt.*

In addition to the characters laid down in the table above, this species differs from *C. nigricans*, de Nicév., as follows:—The white spot in cell 1 *a* of the fore wing is irregularly roundish, not reaching halfway across the cell, and placed next the apex of the lower edge of the white spot in cell 2. On the underside the hyaline spot in

cell 1 *a* of the fore wing is attended on the outer side by two suffused whitish blotches divided by the intra-neural fold. The hind wing below is dark brown with somewhat of a purple shade, and there is a feeble suffused yellow spot next the transverse vein and a subterminal series of suffused indistinct yellow spots, of which the strongest are the two in cell 1 *b*.

Expanse $32\frac{1}{2}$–$36\frac{1}{2}$ mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from three males and two females ex coll. Staudinger. Males only are in coll. Elwes.

! Celænorrhinus nigricans.

Plesioneura nigricans, de Nicéville, Jour. As. Soc. Beng. 1885, p. 123, pl. ii. fig. 6, ♀.

Hab. Mandi, N.W. Himalaya (*Young*); Sikkim (*Möller*); E. Pegu (*Doherty*).

Celænorrhinus orbiferus, n. sp. (Plate XVIII. fig. 2, ♂.)

♂. Very near to *C. nigricans*, de Nicév., from which it differs in the following particulars:—Upperside darker brown, the white spot in cell 2 of the fore wing suborbicular, occupying the whole width of the cell; the white spot in cell 1 *a* of the fore wing minute, punctiform, and placed near the apical fifth of vein 2. On the underside of the fore wing the white spot in cell 1 *a* is larger than on the upperside, and accompanied by a suffused subquadrate whitish spot.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one example ex coll. Staudinger.

! Celænorrhinus asmara.

Plesioneura asmara, Butler, Trans. Linn. Soc. Lond., Zoology, ser. 2, vol. i. p. 556 (1877); Distant, Rhop. Mal. p. 400, pl. xxxv. fig. 28 (1886).
Celænorrhinus consertus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 222, pl. E. fig. 12, ♂.
Celænorrhinus cacus, de Nicéville, t. c. p. 223, pl. E. fig. 11, ♂; Elwes, P. Z. S. 1892, p. 661.
Plesioneura goto, Mabille, Ann. Soc. Ent. Belg. xxvii. p. lvi (1883).
Notocrypta goto, Leech, Butt. China &c. p. 628, pl. xxxviii. fig. 4, ♂ (1894).
Plesioneura palajava, Staudinger, Isis, ii. p. 156, pl. ii. fig. 10 (1889).
Celænorrhinus palajava, Semper, Schmett. Philipp. p. 360 (1892), *sec. spec. comm.*

Hab. E. Pegu, Pulo Laut, Borneo (*Doherty*); Khasia Hills, Rangoon (*fide de Nicéville*); Malacca (*Pinwill* in B. M.); Japan? (*fide Mabille*); Palawan (*Platen*); E. Java (*Piepers*).

We have examined Staudinger's type of *palajava*, which agrees with what Elwes followed de Nicéville in calling *C. cacus*, but which agrees with an example from Malacca figured by Distant as *asmara*, Butl. We have seen Mabille's type of *P. goto*, but strongly doubt the habitat given by him.

! Celænorrhinus tibetana.

Pterygospidea tibetana, Mabille, Ann. Soc. Ent. Fr. ser. 5, vol. vi. p. liv (1876).
Notocrypta tibetana, Leech, Butt. China &c. p. 628, pl. xxxviii. fig. 6, ♂ (1894).

Hab. West China (*Pratt*); Siau-lou (? Yunnan, *fide Oberthür*).

! Celænorrhinus dhanada. (Plate XXII. figs. 1, 1 *a*, 1 *b*.)

Plesioneura dhanada, Moore, P. Z. S. 1865, p. 789.
Kerana dhanada, Watson, Hesp. Ind. p. 150 (1891); Elwes, P. Z. S. 1892, p. 663.

Hab. Sikkim (*Möller*).

We have seen no specimen of this species except from Sikkim. It is therefore probable that so-called *dhanada* from the Khasias and Burmah in collections are really *C. affinis* (*vide* p. 121 *post*).

! Celænorrhinus andamanica. (Plate XXII. figs. 2, 2 *a*.)

Plesioneura dan, var. *andamanica*, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 257; iid. op. cit. 1887, p. 391.
Coladenia dan, var. *andamanica*, Watson, Hesp. Ind. p. 120.

In the male of this species the lower lobe of the clasp is acute with a strong tooth near the middle of its upper edge, and the tegumen is bifid in its apical third.

Hab. Andamans (*de Roepstorff*); Cherra Punji (*fide Swinhoe*).

Celænorrhinus inæqualis, n. sp. (Plate XVIII. fig. 3, ♂.)

♂. Allied to *C. saturatus*, from which it differs as follows:—The band on the fore wing is narrower and paler, somewhat resembling that of *C. tibetana*, Mab., and the spots which connect the band with the costa are quite hyaline. The pale spot in cell 3 fills up the base of that cell, the inner edge of the pale spot in cell 2 does not reach further inwards than the base of vein 3, and the pale spot in cell 1 *a*, which joins the apical third of the lower edge of that in cell 2, is oblique, about one-half higher than wide, and has its outer edge almost continuous with that of the spot in cell 2. On the hind wing below there is a feeble suffused yellow spot next the transverse vein and the faint indication of a postmedian series of similar spots running parallel to the termen. The fringe of the hind wing is greyish yellow, slightly interrupted with brown next veins 2–4, and the short scales are brown.

Expanse 36 mm.

Hab. Gedeh, Java.

Described from one example ex coll. Staudinger.

Celænorrhinus dentatus, n. sp. (Plate XVIII. fig. 4, ♂.)

Differs from *C. saturatus* as follows:—

♂. Upperside browner, the hind wing therefore not exhibiting brown spots; the pale spot in cell 3 of the fore wing filling up the extreme base of that cell; the

pale spot in cell 1 *a* of the fore wing oblong, with a large tooth continuous with its inner edge jutting out at its inner lower angle.

♀. Similar to the male, but the hyaline spot in cell 1 *a* of the fore wing below is attended on its outer side by a subquadrate yellow opaque spot.

Expanse 38–39 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one pair ex coll. Staudinger.

Celænorrhinus fulvescens, n. sp. (Plate XVIII. fig. 5, ♂.)

♂. Differs from *C. saturatus* in the following particulars:—Rather smaller and decidedly brighter and more reddish yellow-brown in colour; the pale spot in cell 3 of the fore wing fills up the entire base of that cell, and the pale spot in cell 1 *a* of the fore wing is a mere point situate next the middle of the lower edge of the pale spot in cell 2; the latter character will serve to distinguish it from the variety of *C. saturatus* in which the pale spot in cell 3 of the fore wing fills up the base of that cell.

Expanse 33 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one example ex coll. Staudinger.

! Celænorrhinus saturatus, n. sp. (Plate XVIII. fig. 6, ♂; Plate XXII. figs. 5, 5*a*.)

♂. Upperside warm brown, passing into yellow-brown on the hind wing by reason of the rather heavy clothing of dull yellow scales: fore wing with an oblique sordid yellow median macular band composed of the following elements:—an opaque spot next the costa, a large oblong hyaline spot across the cell having its outer edge notched, a hyaline spot occupying the basal third of cell 3 except the extreme base, a large hyaline spot occupying the middle third of cell 2 and usually in the form of a parallelogram, and a small roundish or subquadrate hyaline spot in cell 1 *a*, standing next to the apical third of the lower edge of the spot in cell 2; three small subequal yellowish hyaline spots in cells 6, 7, and 8, and sometimes a pale point near the middle of one or both of cells 4 and 5: hind wing with a suffused brown discal spot and a postmedian macular band of suffused brown spots running parallel with the termen. Underside: fore wing brown, a little paler along the dorsum; pale spots as on the upperside, but that next the costa stronger; sometimes there is a suffused pale subtornal spot: hind wing brown, with a feeble pattern of suffused dull yellow spots, of which one lies across the middle of the cell, one before the middle of cell 7, and the remainder form median and postmedian curved series running parallel with the termen. Fringe of the fore wing brown, sometimes paler next cell 1 *a*; of the hind wing brown, more or less chequered with yellowish grey. Antennæ brown, more or less spotted with yellowish white and with a feeble yellowish ring next the base of the club. Body and legs concolorous with the wings. Second joint of palpi clothed with greyish-

yellow hairs, with a few black ones intermixed. Lower lobe of clasp subtruncate, its upper edge simple; tegumen bifid to the middle.

♀. Similar to the male.

Expanse 37 mm.

Hab. Megamendong, Tjampea, Java (*Piepers*); Java (*Fruhstorfer*); Arjuno, Java, Bali (*Doherty*).

Described from six males and one female in coll. Elwes. One of the six males has the base of cell 3 entirely filled up with yellow. This species might be confused with large specimens of *Coladenia dan*, Fab., but the latter may be at once distinguished by the porrect third joint of its palpi.

Specimens of this species were sent by Herr Snellen as *dhanada*, Moore, and it is probable that the *dhanada* of the British Museum and some other collections is the same thing.

! Celænorrhinus cameroni.

Plesioneura cameroni, Distant, Ann. & Mag. Nat. Hist. ser. 5, vol. x. p. 248 (1882).
Kerana aurivittata, var. *cameroni*, ibid. Rhop. Mal. p. 403, pl. xxxiv. fig. 19 (1886).

Hab. Perak (*Doherty*); Malacca (*ex coll. Stgr.*).

! Celænorrhinus lativittus, n. sp. (Plate XVIII. fig. 7, ♂.)

Plesioneura lativitta, Staudinger, *in litt.*

♂. Resembles *C. dentatus*, but is rather smaller and darker and also differs from it in the following particulars:—Band on the fore wing deep golden yellow, practically of the same tint throughout, its inner edge straight and continuous from the costa to vein 2, its width where it crosses the cell equal to or exceeding one-fifth of the length of the costa; the pale spot in cell 1 *a* of the fore wing triangular, adjoining the apical half of the lower edge of that in cell 2, its apex nearly touching vein 1 *a*, its outer edge irregular and attended by a more or less distinct suffused yellow spot; on the underside of the fore wing the triangular yellow spot in cell 1 *a* and a subquadrate spot between it and the termen are plain and confluent, forming a large subtornal spot. On the upperside the surface of the triangular spot in cell 1*a* of the fore wing is similar to that of the spot in cell 2, but on the underside its surface is scaled as heavily as the rest of cell 1 *a*, but with yellow scales.

♀. Similar to the male, but a little larger and paler.

Expanse 35–37 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one pair in coll. Elwes. Others are in Dr. Staudinger's collection.

! Celænorrhinus affinis, n. sp. (Plate XVIII. fig. 9, ♀; Plate XXII. fig. 4.)

Differs from *dhanada*, Moore, in the particulars set forth in the table of species. Having regard to the male genitalia, it is much more nearly allied to *C. dhanada* than

to *C. aurivittata*, and it is, probably, the species upon which Watson bases his assertion (Hesp. Ind. p. 149) that the fringe of the hind wing in *aurivittata* is not invariably brown.

Hab. Khasias (*Hamilton*); E. Pegu (*Doherty*); Tenasserim (*Bingham*).

! Celænorrhinus aurivittata. (Plate XXII. figs. 3, 3 *a*.)

Plesioneura aurivittata, Moore, P. Z. S. 1878, p. 843, pl. liii. fig. 2.
Kerana aurivittata, Watson, Hesp. Ind. p. 149 (1891).

The best points for distinguishing this species from *dhanada*, Moore, lie in the deep yellow spot near the tornus of the fore wing, which forms the end of the pale band, and the unchequered brown fringe of the hind wing; in these respects it resembles the *aurivittata* var. *cameroni* of Distant, which, however, is easily distinguished by the difference in the pale band on the fore wing set forth in the foregoing table. Watson's statement that the fringe of *aurivittata* is not invariably brown on the hind wing leaves one in doubt whether the localities which he gives for that insect really refer to the *aurivittata* of Moore and of this paper or to *C. affinis*.

Dr. Staudinger sends from Kina Balu, Borneo, a single female specimen, which differs from *aurivittata* as follows:—The pale spots in cells 6, 7, and 8 of the fore wing are unequal, that in cell 7 being at least twice as large as the minute punctiform ones in cells 6 and 8; the pale spot in the cell of the fore wing reaches two millimetres further inward than that in cell 2, and the hind wing below has a narrow yellow spot next the transverse vein and a subterminal series of suffused indistinct yellow spots, of which the strongest are two near the apex of cell 1 *b*.

Hab. Nagas, Upper Burmah (*Doherty*); Tavoy (*Pitman*); Andamans (*fide Swinhoe*).

! Celænorrhinus ladana.

Carystus ladana, Butler, Trans. Ent. Soc. Lond. 1870, p. 502; id. Lep. Exot. p. 170, pl. lix. fig. 1 (1874).

Hab. Perak (*Doherty*).

Celænorrhinus batchianus, n. sp. (Plate XVIII. fig. 10, ♂).

♂. Upperside dark brown: fore wing with a somewhat narrow pale yellow oblique band from the upper edge of the cell to vein 2, of which latter it adjoins the preapical fourth; the inner edge of this band is practically regular. Underside similar to the upperside, but somewhat paler. Fringes brown. Antennæ brown above, grey-brown beneath, the apiculus whitish or yellowish on the underside. Body and legs concolorous with the wings.

♀. Similar to the male, but a little larger and paler, and having in cell 1 *a* of the fore wing a triangular yellow spot adjoining the lower edge of the yellow spot in cell 2 beyond its middle and reaching less than halfway across the cell. On the under-

side of the fore wing there is a little yellow suffusion from the upper edge of the cell towards the costa.

Expanse 40–43 mm.

Hab. Batchian (*fide Stgr.*).

Described from one pair ex coll. Staudinger.

! CELÆNORRHINUS BADIA.

Pterygospidea badia, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, vol. xx. p. 322 (1877); id. Desc. Lep. Coll. Atk. p. 4 (1879).

Plesioneura badia, de Nicéville, Jour. As. Soc. Beng. 1883, p. 88, pl. x. fig. 10, ♂.

Hab. Sikkim (*Möller*).

This seems an extremely rare and local species.

ABRAXIMORPHA, gen. nov.

This generic name is proposed for *Pterygospidea davidii*, Mab., a species which is totally different in facies from any of the species properly referred to either of the genera in which it has hitherto been placed, namely, *Pterygospidea* and *Celænorrhinus*.

Antennæ, wing-shape, venation, and tibial spurs of *Celænorrhinus*. Palpi: second joint ascending, third well-developed, porrect. Fore wing above greyish black, with many irregular pure white spots; hind wing below pure white, with four irregular transverse series of greyish-black spots—basal, antemedian, postmedian, and terminal. Front coxæ of the male with a long hair-pencil on the inner lower side; no hair-pencil on the hind tibiæ.

! ABRAXIMORPHA DAVIDII.

Pterygospidea davidii, Mabille, Ann. Soc. Ent. Fr. 1876, p. liv.

Celænorrhinus davidi, Leech, Butt. China &c. p. 572, pl. xxxix. fig. 9, ♂.

Hab. Central China (*Pratt*).

SARANGESA.

Sarangesa, Moore, Lep. Cey. i. p. 176 (1881); Watson, Hesp. Ind. p. 53 (1891); id. P. Z. S. 1893, p. 48. Type *purendra,* Moore.

Hyda, Mabille, Bull. Soc. Ent. Fr. (6) ix. p. clxxxiii (1889). Type *micacea,* Mab.

Sape, Mabille, Bull. Soc. Ent. Belge, p. lxvii (1891). Type *lucidella,* Mab.

The slight arching of the lower margin of the cell of the fore wing between veins 2 and 3 in *Sarangesa*, upon which Watson in his table relies for the separation of the former from *Coladenia*, Moore, is so slight as not to be readily appreciable.

The following is a table of the species known to us:—

1 (4). Hind wing below with small pale spots.

2 (3). A large transparent pale spot in cell 2 of fore wing . . . . . *purendra,* Moore.

3 (2). No such spot in cell 2 of fore wing . . . . . *sati,* de Nicév.

4 (1). No pale spots on hind wing below.
5 (6). Hind wing below grey-brown, with three transverse series of darker spots . . . . . *dasahara*, Moore.
6 (5). Hind wing below for the most part pale bluish white . . . . . *albicilia*, Moore.

! SARANGESA PURENDRA. (Plate XXII. figs. 6, 6 *a*.)

Sarangesa purendra, Moore, P. Z. S. 1882, p. 262; Watson, Hesp. Ind. p. 54 (1891).

Hab. Mandi, N.W. Himalaya (*Young*); ?Nilgiris (*Roberts*).

As defined by the characters in the foregoing table this form seems a good species. We only know it certainly from the N.W. Himalaya, but I have a specimen believed to be from the Nilgiri Hills, whence *dasahara* is recorded by Sir G. F. Hampson.

! SARANGESA SATI. (Plate XXII. fig. 8.)

Sarangesa sati, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 391, pl. G. fig. 37, ♂.

Hab. Kutch; Rajputana.

! SARANGESA DASAHARA. (Plate XXII. fig. 7.)

Nisioniades dasahara, Moore, P. Z. S. 1865, p. 787.
Sarangesa dasahara, Watson, Hesp. Ind. p. 54 (1891).

Hab. Kangra (*Hocking*); Mandi (*Young*); Sikkim (*Möller*); Nagas, E. Pegu (*Doherty*); Ganjam (*Minchin*); Bombay (*Swinhoe*); Canara (*Aitken*); Tenasserim (*Bingham*); Akyab (*Adamson*).

This species and *albicilia* are remarkable for the possession, in the male, of a slightly curved horn on each side of the base of the terminal part of the tegumen; in *purendra* and *sati* this part is simple, not subtended by a horn on each side.

! SARANGESA ALBICILIA.

Sarangesa albicilia, Moore, Lep. Cey. i. p. 176, pl. lxviii. figs. 5, 5 *a* (1881); Watson, Hesp. Ind. p. 55 (1891).

Hab. Ceylon (*Wade*, *Mackwood*).

This insect, in its typical state, is evidently a Ceylonese local form of *S. dasahara*, Moore; the male genitalia in each absolutely agree, and the only point of distinction is the development in *albicilia* of the bluish-white shade (with the co-extensive white fringe) on the hind wing below, which proceeds from the tornal region and spreads over the whole surface, except about the costal third. The two specimens on which Mr. Hampson includes *albicilia* in his Nilgiri list (Jour. As. Soc. Beng. 1888, p. 368), and of which he remarks that they differed from Ceylon specimens in being dusky instead of white on the underside of the hind wing, seem to have been intermediate between the two forms. The tendency to the development of the pale suffusion of the hind wing below

is evident in an otherwise normal specimen from Akyab; and Moore seems to have had in mind specimens similar to this when he wrote that *albicilia* "differs from *S. dasahara* in the hind wing being *more prominently* white."

Coladenia.

Coladenia, Moore, Lep. Cey. vol. i. p. 180 (1881); Watson, P. Z. S. 1893, p. 49. Type *indrani*, Moore.

A genus of few species, placed together on account of their resemblance to "*Plesioneura*" *indrani*, Moore. The third joint of the palpi is porrect.

The species known to us may be distinguished as follows:—

Fore wing above with a black or denuded and therefore dark spot or spots near the basal third of cell 1 *a*, visible on one or both surfaces.
  Hind wing below with three or more black spots.
    Fore wing below with a more or less distinct yellow spot in the apex of cell 1 *a*.
      Pale spots in cells 6, 7, and 8 of fore wing subequal in size, their bases practically in line . . . . . *indrani*, Moore.
      Pale spots in cells 6 and 8 of fore wing larger than that in cell 7, their bases nearly in line with the apex of the spot in cell 7 . . . . *tissa*, Moore.
    No such spot on the fore wing below.
      Termen of hind wing bluntly angulated between veins 2 and 4. Hyaline spot in cell 7 of fore wing well developed. Dark spots in cell 7 of hind wing below subequal in size . . . . . *laxmi*, de Nicév.
      Termen of hind wing rounded or scarcely perceptibly produced between veins 2 and 4. Hyaline spot proper to cell 7 of the fore wing obsolete or wanting. Distal dark spot in cell 7 of the hind wing below subquadrate, twice as large as the proximal one . . . . *sobrina*, n. sp.
  Hind wing below brown, with three transverse curved series of suffused ochreous spots . . . . . *dan*, Fab.
Fore wing above with no dark spot near the basal third of cell 1 *a*.
  Hyaline spots on the fore wing pure white.
    Outermost row of dark spots on the hind wing passing through cells 4–5 just before the middle.
      Upperside pale brown. Back of tegumen simple . . . . . *agni*, de Nicév.
      Upperside dark umber-brown. Tegumen with a large dorsal crest . . *agnioides*, n. sp.
    Outermost row of dark spots on the hind wing passing through cells 4–5 evidently beyond the middle . . . . . *igna*, Semper.
  Hyaline spots on the fore wing sordid yellowish white. Outermost row of dark spots on the hind wing passing through cells 4–5 just before the middle. Upper edge of clasp with one small sharp triangular tooth near the middle . . . . . *semperi*, n. sp.

! Coladenia indrani.

Plesioneura indrani, Moore, P. Z. S. 1865, p. 789.
Coladenia indrani, Watson, Hesp. Ind. p. 118.

Two specimens from North Canara (Aitken, 11.7.90 and 14.8.90) differ from the ordinary form in the umber-brown colour of the upperside, and in the absence of the subterminal series of pale markings, except the spot in cell 1 *a* on the fore wing below. A specimen from the Nilgiris (Hampson, 8.9.84), which is probably of the same species as the specimens recorded by Hampson from the Nilgiris as *C. tissa*, is intermediate in appearance between the Canara specimens and the ordinary form. The male genitalia afford no means of distinction between the three forms.

Hab. Sikkim (*Möller*); Burmah (*Doherty*); Tenasserim (*Bingham*); N. Canara (*Aitken*); Nilgiris (*Hampson*).

Coladenia tissa.

Coladenia tissa, Moore, Lep. Cey. i. p. 180, pl. lxvii. fig. 6 (1881).

This species, though otherwise closely resembling the preceding, and probably just as variable in colour, may be known in both sexes by the distinct displacement inwards of the middle one of the three pale spots which form the subapical series. The differences in the male genitalia of the two species are merely those of degree.

Hab. Ceylon (*Wade, Mackwood*).

! Coladenia laxmi. (Plate XXII. fig. 10.)

Plesioneura laxmi, de Nicéville, Jour. As. Soc. Beng. 1888, p. 290, pl. xiii. fig. 5, ♀.
? *Netrocoryne atilia*, Mabille, Le Naturaliste, 1888, p. 88.
Plesioneura atilia, var. *palawana*, Staudinger, Iris, ii. pp. 156, 165, pl. ii. fig. 11 (1889).
Tapena laxmi, de Nicéville, op. cit. 1891, p. 382, pl. G. fig. 28, ♂; Watson, Hesp. Ind. p. 123 (1891); Semper, Schmett. Philipp. p. 316 (1892).

Hab. Perak (*Doherty*; ♂ type in coll. Elwes); Burmah (*Bingham, fide de Nicéville*); Luzon, S.E. Mindanao (*Semper*); Palawan (*Platen*); Kina Balu (*Waterstradt*); Namoe Oekor, Sumatra (*Martin*).

Coladenia sobrina, n. sp. (Plate XVIII. fig. 12, ♂.)

♂. Upperside: fore wing fuscous or mouse-grey, with a suffused dark terminal band and an oblique white macular median band from vein 2 to the costa, composed of the following hyaline spots:—one large and oblong near the middle of cell 2, one small and subquadrate near the base of cell 3, not filling up the base of that cell, one large and oblong across the cell, and one also oblong between the subcostal and the costa, two hyaline points placed obliquely, the lower innermost, beyond the middle of cell 1 *a*, and a small hyaline spot in each of cells 6 and 8, that usually found in cell 7 obsolete or wanting; near the basal third of cell 1 *a* a somewhat indistinct geminate dark spot or

pair of spots: hind wing fuscous, with antemedian and postmedian irregular curved series of blackish spots, and a feeble indication of a narrow suffused subterminal dark band from the costa as far as the middle. Underside: fore wing similar to the upperside, but somewhat paler and having the dark spots near the basal third of cell 1*a* distinct: hind wing with a postmedian series of black spots corresponding with that on the upperside; a black spot in the upper distal angle of the cell, and two in cell 7, one near the base and the other, which is subquadrate and reaches across the cell, near the middle. Fringes dark fuscous, on the underside with a pale anteciliary line. Second joint of palpi clothed with black and pale grey scales intermixed. Antennæ above dark brown, the apiculus and the underside of the shaft pale grey. Body and legs concolorous with the wings.

Expanse 35 mm.

Hab. Namoe Oekor, Sumatra (*Martin*).

Described from a specimen ex coll. Rothschild. This species most nearly resembles *C. laxmi* in colour and markings, but is easily to be distinguished by its larger size and the rounded termen of the hind wing.

! Coladenia dan. (Plate XXII. figs. 9, 9 *a*.)

Papilio dan, Fabricius, Mant. Ins. ii. p. 88 (1787).
? *Hesperia eacus*, Latreille, Enc. Méth. ix. p. 738 (1823).
Coladenia dan, Distant, Rhop. Mal. p. 398, pl. xxxv. fig. 27 (1886); Watson, Hesp. Ind. p. 120 (1891).
? *Coladenia dan*, var. *dea*, Leech, Butt. China &c. p. 568, pl. xxxviii. fig. 10, ♂ (1894).
Hesperia fatih, Kollar, Hügel's Kaschmir, iv. p. 454, pl. xviii. figs. 5, 6 (1848).
Coladenia fatih, Watson, t. c. p. 119.

Watson (*t. c.* p. 120) records Mr. de Nicéville's opinion, contrary to that generally prevalent, that this species is distinct from *C. fatih*, Koll.; but he proceeds, "I am unable to say by what characteristic they are to be separated, though *C. fatih* seems to be constantly larger." The latter view is carried out in Watson's arrangement of the specimens in the British Museum, where the larger specimens are called *fatih*, Koll., and the smaller ones *dan*, Fab.

Hab. Kangra (*Hocking*); Kulu (*Young*); Sikkim (*Möller*); Margherita (*Doherty*); Khasias (*Elwes*); Bernardmyo, E. Pegu (*Doherty*); Akyab, Moulmein (*Adamson*); Perak (*Doherty*); Java (*Fruhstorfer*); Sambawa (*Doherty*); Bali, low country (*Doherty*).

! Coladenia agni. (Plate XXII. figs. 11, 11 *a*.)

Plesioneura agni, de Nicéville, Jour. As. Soc. Beng. 1883, p. 87, pl. x. fig. 4, ♀.
Tapena agni, Watson, Hesp. Ind. p. 122 (1891).

Hab. Sikkim (*Möller*); E. Pegu (*Doherty*); Kina Balu, Borneo (*Waterstradt*).

! Coladenia agnioides, n. sp. (Plate XVIII. fig. 11 ; Plate XXII. figs. 12, 12 *a*.)

This species is distinguished from *agni* in the first place by its dark umber-brown colour and the dark umber-brown fringe to cells 6 and 7 on the hind wings below ; the pale fringe to these cells is not absolutely constant in *agni*, but is well marked in 4 out of the 5 male specimens examined. The male genitalia also differ considerably : in *agnioides* there is a large dorsal crest on the tegumen and the upper lobe of the clasp is merely a very small pointed strap-shaped piece ; in *agni* the back of the tegumen is simple and the upper lobe of the clasp is at least as wide as the lower lobe, rounded on the upper edge and triangularly pointed.

The type in coll. Elwes was taken in the Naga Hills by Mr. Doherty.

Coladenia igna.

Tapena igna, Semper, Schmett. Philipp. p. 316 (1892).

Hab. Luzon, E. Mindanao (*Semper*).

Coladenia semperi, n. sp.

Tapena laxmi, Semper, Schmett. Philipp. p. 316 (1892), in part.

This species is founded on the male specimen from Camiguin de Mindanao referred to by Semper (*l. c.*) as differing from his other specimens of *laxmi* in having the hyaline spots smaller and yellower, and the hind wing above browner, with the outer row of dark spots more distinct. Fortunately we have been able to examine the clasp-form of this specimen without dissection, and find that it differs from that of *laxmi* in the particulars given in the table above. The angulation of the hind wing also is less evident than in *laxmi*.

Hab. Philippines (*Semper*).

Coladenia hamiltonii.

Coladenia hamiltonii, de Nicéville, Jour. As. Soc. Beng. 1888, p. 291, pl. xiii. fig. 8, ♂ ; Watson, Hesp. Ind. p. 121 (1891).

We transcribe the original description of this species, taken from a single specimen from Sylhet :—

"*Male*. Upperside : fore wing olive-greenish fuscous, with two very irregular broad discal black fasciæ joined in the middle ; three most minute transparent subapical dots, the uppermost the largest, placed at the outer edge of the anterior portion of the outer black fascia ; a very minute similar spot in the second median interspace ; a very attenuated spot across the middle of the first median interspace, both placed on the outer black fascia ; the inner margin somewhat broadly irrorated with greyish scales ; a submarginal indistinct broad blackish fascia. Hind wing : ground-colour much as in

the fore wing, but the outer third of the wing irrorated with grey scales; a recurved black macular decreasing band from the costa near the apex of the wing to the second median nervule; the discocellular nervules defined by a pale line. Underside: both wings vinous fuscous. Fore wing with the transparent spots as above. Hind wing with the disc irrorated with whitish; the macular black band much as above; an anteciliary whitish line. Cilia fuscous.

Expanse, ♂, 1·6 inches."

The figure gives one the idea of a much-worn and possibly abnormal specimen, and it is remarkable that the species, if species it is, has never since turned up among the numerous collections recently sent from the Khasias.

Coladenia buchananii.

Celænorrhinus buchananii, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 187, pl. B. fig. 2, ♀.

We transcribe the original description of this species, which was described from a single specimen from the Ruby Mine District, Upper Burmah, as we have not seen a specimen:—

"*Female.* Very closely allied to *C. laxmi*, mihi, from which it differs in its considerably larger size. Upperside: fore wing with the white discal band fully twice as wide, not divided into spots, extending uninterruptedly from the costa to the submedian nervure, its edges very irregular, its lower portion posterior to the first median nervule much narrower than the rest of the band: this species lacks the two obliquely placed black dots found near the base of the submedian interspace in *C. laxmi*. Hind wing, instead of possessing two parallel discal macular black bands, has a rounded black spot towards the end of the discoidal cell and a discal series of 6 black spots, of which the anterior one is round and well separated from the spot which follows it, the second spot is round, the next pair are the largest and elongated, and the last pair smaller but also elongated; cilia of hind wing anteriorly white, posteriorly dark brown. Underside: both wings with the same differences as above, but all the spots of the hind wing more prominent."

Although this species is compared with *C. laxmi* it agrees better with *C. agni* in the shape of the hind wing.

Coladenia vitrea.

Coladenia vitrea, Leech, Butt. China &c. p. 569, pl. xli. fig. 15, ♂ (1894).

This species, which was described from a single specimen in the collection of Mr. H. Grose Smith, taken at Ta-tsien-lo, may be distinguished by the hyaline spots on the hind wing below: these, with the exception of one near the base of cell 7, form two irregular transverse series, and are placed as follows:—a subquadrate one near the middle of cell 7, one filling the basal third of cell 6, a large subquadrate one occupying

the distal half of the cell, a narrow one across cell 1 *b* before the middle, one in cells 4–5 just beyond the transverse vein, about half as large as that in the cell, one filling the basal third of cell 3, an oblong one near the middle of cell 2, and a narrow one across cell 1 *b* just beyond the middle.

! Coladenia mæniata.

Coladenia mœniata, Oberthür, Études d'Ent. xx. p. 42, pl. ix. fig. 164, ♂ (1896).

Closely allied to *C. vitrea*, Leech, but differs in the number and position of the hyaline spots in the hind wing below as follows:—the spot in cell 6 does not fill the apex of that cell, there is no spot in cells 4–5, nor across cell 1 *b* before the middle. The termen of the hind wing also is more evidently produced near vein 4 than in *C. vitrea*.

Hab. E. Tibet (*fide Oberthür*).

M. Oberthür was good enough to give Elwes a specimen of the species taken at a place called Mænia, which he says is near Ta-tsien-lo; but, notwithstanding the points of difference above noted, we think it may prove to be only a variety of *C. vitrea*, which came from the same district.

Satarupa.

Satarupa, Moore, P. Z. S. 1865, p. 780; Watson, Hesp. Ind. p. 87 (1891); id. P. Z. S. 1893, p. 46. Type *gopala*, Moore.

Daimio, Murray, Ent. Mo. Mag. xi. p. 171 (1875); Watson, P. Z. S. 1893, p. 47. Type *tethys*, Mén.

It would be better to place in this genus all the species which Watson puts into the genus *Daimio*. Murray used the latter name for *tethys*, Mén., but if such insects as *sinica*, Feld., *phisara*, Moore, and *sambara*, Moore, are associated with *gopala*, Moore, and *nymphalis*, Speyer, in one genus, as they well may be, then *tethys*, Mén., which is evidently congeneric, should be with them and the name *Daimio* becomes unnecessary.

Watson says of *Satarupa*: "Closely allied to *Daimio*, from which it may be separated by the shape of the wings, especially of the hind wing, by the much greater length and more decided hook in the terminal portion of the antennal club, and by the scaling of the hind tibiæ of the male." Of the points on which he relies to separate the genera, the greater length of the hind wing is only found in *gopala*, Moore; the more decided hook in the terminal portion of the antennal club is merely a matter of degree, and the scaling of the hind tibiæ of the male is not sufficiently uniform in the species to form a generic distinction. Of *Satarupa* he says: "In the male the hind tibiæ are fringed along their upper edge, and the inner side of the tibiæ is clothed with long, coarse, recumbent hairs,"—thus omitting all mention of the tuft of long hairs which springs from the upperside of the base of the hind tibiæ in *gopala*, Moore, which he

makes the type of the genus (*nymphalis*, Speyer, in which a similar structure occurs was, apparently, not before him). In *sambara*, Moore, which he also places in *Satarupa*, there is no trace of the tibial pencil in the male. It appears, therefore, that whilst the tibial pencil is always present in the males of *Daimio*, it is also found in two species of *Satarupa* (*gopala*, Moore, and *nymphalis*, Speyer) and absent from one (*sambara*, Moore).

The genus *Satarupa* was used by Moore, its founder, in the extended sense in which it is here treated.

The following is an analytical table of the species known to us:—

1 (20).	Clothing of lower side of second joint of palpi yellow.	
2 (17).	Pale band on hind wing above similar in colour in both sexes.	
3 (14).	Pale band on hind wing above pure white or smoke-grey.	
4 (13).	Pale band on hind wing above pure white.	
5 (8).	Pale spot in cell of fore wing adjoining its upper edge or reaching across the cell. Species large; expanse 62–73 mm.	
6 (7).	Pale spot in cell of fore wing subtriangular, adjoining its upper edge but not reaching the lower	*gopala*, Moore.
7 (6).	Pale spot in cell of fore wing subreniform, reaching quite across the cell	*nymphalis*, Speyer.
8 (5).	Pale spot in cell of fore wing small, next the base of cell 3. Species small, not exceeding 48 mm.	
9 (12).	White band on hind wing below complete, reaching the costa.	
10 (11).	Pale spot in cell 1*a* of fore wing nearly twice as wide as that in cell 2. White band on hind wing much wider than the marginal dark band	*narada*, Moore.
11 (10).	Pale spot in cell 1*a* of fore wing subequal in width to that in cell 2. White band on hind wing not wider (sometimes narrower) than the marginal dark band	*diversa*, Leech.
12 (9).	White band on hind wing below cut short by vein 8, not reaching the costa	*diræ*, de Nicév.
13 (4).	Pale band on hind wing above smoke-grey. Pale spot in cell 2 small, not reaching vein 2, in shape like the lower half of a crescent.	*fumosa*, n. sp.
14 (3).	Pale band on hind wing above cream-coloured or sordid white.	
15 (16).	Pale spot in cell of fore wing large, reaching from side to side . .	*bhagava*, Moore.
16 (15).	Pale spot in cell of fore wing small, next the base of cell 3, or absent.	*phisara*, Moore.
17 (2).	Pale band on hind wing above bright yellow in the male, white in the female; pale band on hind wing below white or yellowish white in both sexes.	
18 (19).	Hind wing above with an indistinct suffused pale subterminal line, the space between it and the pale discal band somewhat darker than the space between it and the termen, and broken up by slightly paler lines along the veins into a series of dark spots . .	*celebica*, Feld.

19 (18). Hind wing above with a subterminal series of suffused spots (on the upperside brownish grey in the male and whitish in the female, on the underside white in both sexes), the space between it and the discal band not broken into spots by pale lines . . . . . *corona*, Stgr.
20 (1). Clothing of lower side of second joint of palpi pure white.
21 (26). No white spot in cell of fore wing.
22 (25). Abdomen above wholly or in part white.
23 (24). Abdomen above entirely white. Base of hind wing below bluish white. *dohertyi*, Watson.
24 (23). Abdomen above dark at base and apex, white in the middle. Base of hind wing below brown . . . . . *sambara*, Moore.
25 (22). Abdomen above entirely brown . . . . . *affinis*, Druce.
26 (21). A large white spot reaching quite across cell of fore wing. Abdomen dark with narrow pale rings or entirely dark.
27 (28). White band on hind wing above very distinct . . . . . *sinica*, Feld.
28 (27). White band on hind wing above absent or but faintly indicated . . *tethys*, Mén.

! SATARUPA GOPALA.

Goniloba gopala, Moore, Cat. Lep. Mus. E.I. C. i. p. 246.
Satarupa gopala, Moore, P. Z. S. 1865, p. 780, pl. xlii. fig. 1; Watson, Hesp. Ind. p. 90 (1891).

Hab. Sikkim (*Möller*); Khasia (*Hamilton*).

! SATARUPA NYMPHALIS.

Tagiades nymphalis, Speyer, Stett. ent. Zeit. xl. p. 348 (1879); Staudinger, Mém. sur Lép. iii. p. 153, pl. viii. fig. 4 (1887).
Satarupa nymphalis, Leech, Butt. China &c. p. 562 (1894).

Hab. Amurland (*fide Speyer*); Chefoo, North China (*in B. M.*); Central and Western China (*Pratt*).

! SATARUPA NARADA.

Satarupa narada, Moore, Jour. As. Soc. Beng. 1884, p. 51; Watson, Hesp. Ind. p. 89 (1891).

Hab. Sikkim (*Möller*); E. Pegu (*Doherty*).

! SATARUPA DIVERSA.

Pterygospidea diversa, Leech, Entomologist, xxiii. p. 46 (1890).
Daimio narada, var. *diversa*, Leech, Butt. China &c. p. 566, pl. xxxviii. fig. 14, ♂ (1894).

This insect is quite as distinct from *S. narada*, Moore, as are some of the admitted species *inter se*, and there seems to be no advantage in treating it as a variety of *narada*.

Specimens from the Khasia Hills agree with those from Central China. We have not seen it from any intermediate locality.

! Satarupa diræ.

Daimio diræ, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 369, pl. Q. fig. 49, ♂.
Tagiades graya, Staudinger, MS.

Hab. Pulo Laut; Arjuno; Java; Bali (*Doherty*); N.E. Sumatra (*fide de Nicéville*).

Abdomen black, hind margin of the segments narrowly white.

A single female from Pulo Laut, which otherwise much resembles *diræ*, has the abdomen white with the apical third black.

Satarupa fumosa, n. sp. (Plate XVIII. fig. 13, ♂.)

♂. Upperside fuliginous brown: fore wing with seven white hyaline spots—one, the largest, in shape like the lower half of a crescent, in cell 2 next the base of vein 3 and not quite reaching vein 2, one in cell 3 outwardly oblique from the base of vein 4, four small and punctiform (one near the middle of cells 5 and 8 and one near the basal third of cells 6 and 7), and one small and roundish near the apical fourth of the upper edge of the cell: hind wing with a broad discal band and a narrow subterminal macular band smoke-grey. Underside: fore wing as on the upperside and having two suffused subquadrate white spots divided by the intraneural fold near the apex of cell 1*a*: hind wing fuliginous brown, with bluish-white hairs near the base, a broad pure white discal band from the dorsum as far as vein 7 and continued into cell 7 by a suffused whitish spot near the middle of the lower edge of that cell, and a subterminal series of seven suffused sordid whitish spots, two in cell 1*b* and one in each of cells 2–6. Fringes and body above concolorous with the wings. Antennæ blackish, apiculus grey beneath. Clothing of the second joint of the palpi and the breast yellow, of the legs sordid white. Abdomen beneath white.

Expanse 35 mm.

Hab. Sumatra (*Martin*).

Described from one specimen in coll. Rothschild.

! Satarupa bhagava.

Satarupa bhagava, Moore, P. Z. S. 1865, p. 781; Watson, Hesp. Ind. p. 88 (1891).
Satarupa phisara, var. ?, Elwes, P. Z. S. 1892, p. 655.
Tagiades bhagava, var. *andamanica*, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 256, pl. iv. fig. 5, ♂; Watson, l. c.

Hab. Bernardmyo, Burmah (*Doherty*); Tavoy (*Tucker*); ?Sikkim.

We identify this species by Moore's description alone. He gives N.E. Bengal as the habitat. It may occur in Sikkim, but we have no specimens from there.

The var. *andamanica*, according to the figure, differs from the type in wanting the cream-coloured subquadrate spot near the middle of cell 1*a* on the fore wing above and the cream-coloured streak below vein 1*a* by which the spot is continued to the

dorsum; it agrees with the type on the underside. Judging from the description, however, it is a mere trifling variety with no constant character and not worthy of a name.

! SATARUPA PHISARA.

Satarupa phisara, Moore, Jour. As. Soc. Beng. 1884, p. 50; Wood-Mason & de Nicéville, op. cit. 1886, p. 390, pl. xvii. fig. 4, ♂; Watson, Hesp. Ind. p. 89 (1891).
Satarupa bhagava?, de Nicéville, Jour. As. Soc. Beng. 1883, p. 90, pl. x. fig. 14, ♀.

Hab. Sikkim (*Möller*); Khasia (*Hamilton*).

! SATARUPA CELEBICA.

Pterygospidea celebica, Felder, Reise Nov., Lep. iii. p. 528, pl. lxxiii. fig. 8, ♂ (1867).
Pterygospidea permena, Hewitson, Descr. Hesp. p. 51 (1868).

Hab. Sula Island (*coll. Stgr.*); Celebes (*fide Felder*).

! SATARUPA CORONA.

Tagiades corona, Staudinger, MS.
Satarupa corona, Semper, Schmett. Philipp. p. 306, pl. xlix. fig. 2, ♀ (1892).

Hab. Davao, Mindanao (*coll. Staudinger*); Philippines (*Semper*).

SATARUPA DOHERTYI.

Satarupa dohertyi, Watson, P. Z. S. 1893, p. 46.

Rather larger than *S. sambara*, with the postmedian row of black spots on the hind wing below more regular and freer from the dark terminal band.

Hab. Kumaon (*fide Watson*).

SATARUPA SAMBARA.

Goniloba sambara, Moore, Cat. Lep. Mus. E.I.C. i. p. 246 (1857).
Satarupa sambara, Moore, P. Z. S. 1865, p. 781; Watson, Hesp. Ind. p. 89 (1891).

Hab. Sikkim (*Möller*); Khasia (*Hamilton*).

! SATARUPA AFFINIS.

Satarupa affinis, Druce, P. Z. S. 1873, p. 360, pl. xxxiii. fig. 9.
Satarupa affinis, var. *cognata*, Distant, Rhop. Mal. p. 385, pl. xxxv. fig. 17 (1886).
Tagiades niphates, Weymer, Stett. ent. Zeit. vol. xlviii. p. 15, pl. i. fig. 5 (1887).

This species is nearest to *S. sambara*.

Hab. Kina Balu (*Waterstradt*); Sumatra (*fide de Nicéville*); Perak (*fide Distant*); Preanger, W. Java (*Piepers*).

! SATARUPA SINICA.

Pterygospidea sinica, Felder, Wien. ent. Mon. vi. p. 30 (1862).
Pterygospidea moori, Mabille, Ann. Soc. Ent. Fr. 1876, p. clii; Alphéraky, Rom. Mém. sur Lép. v. p. 122, pl. v. figs. 9 *a*, *b* (1889).
Daimio felderi, Butler, Ann. & Mag. Nat. Hist. (5) vii. p. 140 (1881).
Daimio sinica, Leech, Butt. China &c. p. 565 (1894).

Hab. Central and Western China (*Pratt*, *Leech*).

The insect here dealt with is the same as that figured by Alphéraky as cited above, but we have no means of deciding if it is really the true *sinica* of Felder.

The *sinica*, Feld., of the British Museum collection, from North China, is a species with the clothing of the second joint of the palpi below yellow, the white band on the hind wing below reaching from the costa to the dorsum, and bearing a subquadrate brown spot near the apical third of cell 7; the fore wing above has a white band from the middle of the dorsum to the hyaline spot in cell 2 three-fourths as wide as that spot; and the abdomen above is white with the apical fourth brown.

SATARUPA TETHYS.

Pyrgus tethys, Ménétriés, Cat. Mus. Petr. p. 126, pl. x. fig. 8 (1857).
Daimio tethys, Pryer, Rhop. Nihon. p. 33, pl. x. fig. 6 (1889); Leech, Butt. China &c. p. 564 (1894).

Hab. Japan (*Pryer*, *Leech*); Amurland; China (*Pryer*).

ODINA.

Odina, Mabille, Comptes Rend. Ent. Soc. Belg. p. cxiii (1891); Watson, P. Z. S. 1893, p. 50. Type *chrysomelæna*, Mab., = *hieroglyphica*, Butl.

Species orange-yellow, with blackish-brown markings, the dark pattern practically the same on both surfaces. Antennæ more than half as long as costa, club gradual, apiculus acute, scarcely half as long as the club. Palpi ascending, third joint porrect, pointed in *cuneiformis*, Semper, cylindrical and subtruncate in *decoratus*, Hew. Fore wing: vein 5 a little nearer 6 than 4, vein 2 from the basal third of the lower edge of the cell.

Table of Species.

1 (4). Dark markings forming an irregular network on the hind wing above.
2 (3). Hind wing above with the large discal yellow spot triangular . . . *hieroglyphica*, Butl.
3 (2). Hind wing above with the large discal yellow spot irregularly 4-sided . . . . . *cuneiformis*, Semper.
4 (1). Dark markings on the hind wing above an antemedian, postmedian, and marginal row of distinct black spots . . . . . *decoratus*, Hew.

ODINA HIEROGLYPHICA.

Plastingia hieroglyphica, Butler, Trans. Ent. Soc. Lond. 1870, p. 511; id. Lep. Exot. p. 171, pl. lix. fig. 12 (1874); Dist. Rhop. Mal. p. 470, pl. xliv. fig. 25.
Odina chrysomelæna, Mabille, Comptes Rendus Soc. Ent. Belg. p. cxiii (1891), *fide* Watson.

Hind wing above orange-yellow, with a brown band from the middle of the costa to the tornus; this band gives off in cell 6 a Y-shaped branch to join the brown terminal band, and in cell 2 a simple branch to the same band, the large discal yellow spot is therefore triangular; the space between the lower edge of the cell and the dorsum brown, with two yellow spots, one near the middle of cell 1 *b*, and one near the apical third of cell 1 *a*. Fore wing: yellow spots in cells 2 and 3 forming, when taken together, an oblique suboval spot divided by vein 3; that in cell 3 triangular, that in cell 2 not or scarcely reaching vein 2. These particulars are taken from the type specimen from Borneo in the collection of Messrs. Godman and Salvin.

The *O. hieroglyphica* of the British Museum collection has the hind wing above brown, with a large bright yellow spot near the middle of cell 6: this may be an extreme variation of the true *O. hieroglyphica*, Butl., but we have had no opportunity to compare the two insects with the view of deciding this point.

Hab. Labuan (*coll. Staudinger*); Perak (*fide Distant*); Borneo (*Low in coll. Godman*).

ODINA CUNEIFORMIS.

Plastingia cuneiformis, Semper, Schmett. Philipp. p. 314, pl. xlix. fig. 11, ♂ (1892).

Hind wing above orange-yellow; the space between the lower edge of the cell and vein 2 and the dorsum brown, except in the apical fourth, and bearing a yellow streak in cell 1 *a*, and a roundish yellow spot near the middle of cell 1 *b*; from the middle of the costa to the base of vein 2 a straight brown band, which gives off in cell 6 an irregularly Y-shaped branch to join the brown terminal band, from the apex of vein 5 to the apical third of vein 2 an irregular widening brown band, the large yellow discal spot is therefore irregularly four-sided. Fore wing: hyaline spots in cells 2 and 3 forming a short regular yellow band from the middle of vein 2 to the base of vein 4.

These particulars are taken from Herr Semper's type specimen from Mindoro.

Hab. Philippines (*Semper*).

! ODINA DECORATUS.

Eudamus decoratus, Hewitson, Descr. Hesp. p. 17 (1867).
Pterygospidea decoratus, id. Ex. Butt. vol. v. pl. *Pterygospidea*, fig. 2 (1873).
Entheus bicolor, Oberthür, Études d'Ent. xvii. p. 14, pl. iv. fig. 36, ♂ (1893).

Hab. Sylhet, Java (*fide Hewitson*); Garo hills (*fide de Nicéville*); East Pegu (*Doherty*); Tonquin (*coll. Oberthür*).

We have not seen the female of this species, which seems to be unknown.

ODINA ORTYGIA.

Odina ortygia, de Nicéville, Jour. As. Soc. Beng. 1895, p. 531.

Closely allied to *hieroglyphica*, Butl., from which it differs "on both surfaces in having all the black markings reduced by half, all the orange markings therefore greatly enlarged."

Expanse $36\frac{1}{4}$ mm.

Hab. Daunat Range, Tenasserim, Burmah (*fide de Nicéville*).

Described from one male specimen.

DARPA.

Darpa, Moore, P. Z. S. 1865, p. 781; Watson, op. cit. 1893, p. 58. Type *hanria*, Moore.

A genus of one species, distinguished as well by its facies as by its much dentate hind wing, which is produced into a strong tooth at the apex of each of veins 2, 3, 5, and 6.

DARPA HANRIA.

Darpa hanria, Moore, P. Z. S. 1865, p. 781, pl. xlii. fig. 2.

Hab. Sikkim (*Möller*).

TAGIADES.

Tagiades, Hübner, Verz. p. 108 (1816); Watson, P. Z. S. 1893, p. 53. Type *japetus*, Cr.
Pterygospidea, Wallgr. Rhop. Caffr. p. 53 (1857). Type *flesus*, Fab.

A genus of soberly coloured species, brought together on account of more or less resemblance to *Papilio japetus*, Cr. In the more typical species the palpi are porrect, densely scaled, with the usual lateral rows of hairs rudimentary or absent, the last joint small and bluntly conical, and the lower edge of the cell of the fore wing is more or less arcuate between the bases of veins 2 and 3; but this latter is a very variable feature. Watson gives the hind tibiæ as "fringed" only, but the males of several species have penicillate hind tibiæ, and in some the intermediate tibiæ are penicillate also.

The following is a table of the species known to us:—

1 (48). Transverse vein of hind wing erect, *i. e.* forming practically a right angle with vein 4.

2 (39). Second joint of palpi densely scaled, when viewed from the side subovate, nearly as wide as long, the lateral row of hairs rudimentary or absent.

3 (26). No hyaline spot in cell 11 of fore wing.

4 (9). Hind wing above brown, no bluish-white pubeseenee near the termen.
5 (6). Hind wing beneath brown or grey-brown . . . . . *ravi*, Moore.
6 (5). Hind wing beneath in greater part bluish white.
7 (8). Expanse 40–47 mm. Fore wing beneath without a bluish-white suffused patch near the tornus . . . . . *helferi*, Feld.
8 (7). Expanse 49–55 mm. Fore wing beneath with a bluish-white suffused patch near the tornus . . . . . *khasiana*, Moore.
9 (4). Hind wing above with a white or bluish-white patch on the lower half of the termen, or at least with bluish-white pubescence in the same region.
10 (23). Hyaline spots in cell of fore wing very small or absent in the male.
11 (22). Hind wing below with distinct black spots.
12 (17). Pale portion of hind wing above suffused with bluish white, or, if the tornal region of the termen is narrowly white, then the white passes into bluish white towards the base.
13 (14). Hind wing below with the dark costal portion suffused with the bluish white of the disc. Hyaline spots in cells 6, 7, and 8 of fore wing only in either sex . . . . . *alica*, Moore.
14 (13). Hind wing below with the dark costal portion sharply separated from the white discal portion, at least near the termen.
15 (16). Hind wing below : dark costal portion continued along the termen towards the tornus as an irregular line which is interrupted in cells 3 and 4. Hyaline spots in cell of fore wing wanting in both sexes . . . . . *obscurus*, Mab.
16 (15). Hind wing below : dark costal portion continued along the termen towards the tornus as an uninterrupted row of spots. Hyaline spots in cell of fore wing visible in the male, well developed in the female . . . . . *japetus*, Cr.
17 (12). Hind wing above: tornal region of the termen more or less broadly snow-white.
18 (21). Hind wing below: tornal region of the termen with an irregular row of 2 or more, more or less confluent, black spots, which is interrupted in cells 3 and 4.
19 (20). Hind wing below : no dark spot in the end of the cell . . . . *gana*, Moore.
20 (19). Hind wing below : a dark spot in the end of the cell and one in each of cells 3–7, that in cell 7 feeble ; in the female the dark spots in cells 3–6 are subequal in size and form a regular row . *karea*, Mab.
21 (18). Hind wing below : termen with a black border from veins 1*b* to 6 interrupted by the intra-neural folds, which appear as white lines parallel with the veins ; a feeble dark spot in the end of the cell and another near the middle of cell 7 ; a well-defined black spot in each of cells 4–5 and 6, the former geminate . . *elegans*, Mab.
22 (11). No well-defined black spots on hind wing below . . . . . *lavata*, Butl.

23 (10). Hyaline spots in cell of fore wing large and well defined in the male.

24 (25). Termen of hind wing below with a black or brown border from the tornus as far as vein 5 . . . . . *titus*, Plötz.

25 (24). Termen of hind wing below entirely white from the tornus as far as vein 5 . . . . . *pteria*, Hew.

26 (3). Fore wing with a hyaline spot in cell 11.

27 (38). Hind wing below with distinct black spots.

28 (29). Hind wing above with a dark postmedian spot in cell 1*b* . . . *menaka*, Moore.

29 (28). No dark postmedian spot in cell 1*b* on hind wing above.

30 (37). Hind wing above with the dorsum white for at least half its length.

31 (36). Fore wing below without distinct short white streaks in cell 1*a*.

32 (35). Hind wing above: black terminal spots on veins 1*b* to 4 subequal in size, sometimes confluent.

33 (34). Tibial pencil in the male yellowish white; clasp simple. A hyaline spot at least indicated in each of cells 2 and 3 of fore wing below, and generally two in the cell . . . . . *atticus*, Fab.

34 (33). Tibial pencil in the male brown; upper edge of the clasp near the apex with a long, curved, pointed horn, half as long as the clasp. Fore wing above sometimes with two white points placed one above the other near the apical third of cell 1*a*, after the manner of *T. pralaya* and *T. trichoneura* . . . . *sambavana*, n. sp.

35 (32). Hind wing above: terminal black spot on vein 1*b* at least twice as large as those on veins 2, 3, and 4. No hyaline spot in cells 2 and 3 of the fore wing and only one (the upper) in the cell . . *waterstradti*, n. sp.

36 (31). Fore wing below with two distinct short white streaks placed one above the other near the apical third of cell 1*a* . . . . . *martinus*, Plötz.

37 (30). Hind wing above with the dorsum white for about one-fourth of its length . . . . . *nana*, n. sp.

38 (27). Hind wing below fuliginous brown without black spots: in the male with a suffused white streak in cell 1*b* and a feeble indication of a suffused terminal macular whitish band arising near the tornus and becoming obsolescent before vein 4; in the female the whitish markings are more extensive, occupying about half of the wing and passing into bluish white at the base, and there is a suffused white spot on the transverse vein . . *nestus*, Feld.

39 (2). Second joint of palpi laxly scaled.

40 (43). No hyaline spot in cell 10 of the fore wing.

41 (42). Termen of hind wing distinctly excavate in cells 4–5 and distinctly produced on vein 1*b*. No yellow on the hind wing above . . *dealbata*, Dist.

42 (41). Hind wing above with rather more than the terminal third bright yellow. Fore wing above with the apical fifth of cell 1*a* yellow, and with hyaline spots in each of cells 4–8, those in cells 6–8 large and oblong . . . . . *princeps*, Stgr.

43 (40). Fore wing with hyaline spots in cells 10 and 11, those in cells 2 and 3 linear and oblique.
44 (45). Pale portion of hind wing below yellow . . . . . *pralaya*, Moore.
45 (44). Pale portion of hind wing below white.
46 (47). Pale portion of hind wing above yellow . . . . . *trichoneura*, Feld.
47 (46). Pale portion of hind wing above yellowish white, pale yellow only at the tornus . . . . . *trichoneuroides*, Stgr.
48 (1). Transverse vein of hind wing oblique, *i. e.* forming an obtuse angle with vein 4. Second joint of palpi, seen from the side, twice as long as wide, the lateral row of hairs well developed.
49 (50). Fore wing with no hyaline spots in cells 4–8. Hind wing with the subterminal series of dark spots in part merging in the dark terminal band . . . . . *pinwilli* Bntl.
50 (49). Fore wing with hyaline spots in cells 4–8 and a hyaline streak in the base of cell 4 next vein 4. Hind wing with the postmedian series of dark spots free from the dark terminal band. . . . *tabrica*, Hew.

! TAGIADES RAVI

Pterygospidea ravi, Moore, P. Z. S. 1865, p. 779.
Tagiades ravi, Distant, Rhop. Mal. p. 388, pl. xxxiv. fig. 1, ♂ (1886).

Distant's figure (*l. c.*) is rather poor and represents *T. helferi* rather than *T. ravi*.

Hab. Tavoy (*Pitman*); Nicobar, Perak, Pulo Laut (*Doherty*); Nias (*Modigliani*).

! TAGIADES HELFERI.

Pterygospidea helferi, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xii. p. 483 (1862).
Tagiades noctis, Stgr. *in litt.*

Hab. Nicobar (*de Roepstorff*); Camorta (*Doherty*); Borneo (*coll. Stgr.*).

! TAGIADES KHASIANA.

Tagiades khasiana, Moore, Jour. As. Soc. Beng. 1884, p. 51.

Hab. Khasias (*Hamilton*); Nagas (*Doherty*); Akyab (*Adamson*); Tavoy (*Pitman*); East Pegu (*Doherty*); Andamans (*de Roepstorff*).

! TAGIADES ALICA.

Tagiades alica, Moore, P. Z. S. 1877, p. 593, pl. lviii. fig. 2, ♂.
Tagiades meetana, id. t. e. 1878, p. 842, pl. liii. fig. 1.

Specimens with both series of fringe-scales white in the tornal region are *alica*, and those with the long fringe-scales brown and the short ones white are *meetana*; these differences, however, depend on the amount of bluish-white scaling on the hind wing above.

Hab. N. Canara (*Aitken*); E. Pegu (*Doherty*); Tavoy (*Pitman*); Andamans (*de Roepstorff*); Perak, Pulo Laut (*Doherty*).

! TAGIADES OBSCURUS.

Tagiades obscurus, Mabille, Ann. Soc. Ent. Fr. ser. 5, vol. vi. p. 274 (1876); Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 389, pl. xvii. fig. 9, ♀.
Tagiades distans, Moore, Lep. Cey. vol. i. p. 175, pl. lxviii. figs. 1, 1 *a* (1880–81).

Hab. Nilgiri hills (*Hampson*); Ceylon (*Mackwood*); Java? (*fide Mabille*).

Though I have not been able to compare Malayan with Ceylon specimens, yet the absence of the discal spots relied on by Moore for distinguishing his species is a character of no value, the two spots being sometimes absent in Ceylon specimens.

It is possible that *obscurus*, Mab., has not been correctly identified and may be a synonym of *japetus*, in which case the name *distans* will stand.

TAGIADES JAPETUS.

Papilio japetus, Cramer, Pap. Exot. iv. pl. cccIxv. E, F (1782).
Tagiades brasidas, Doherty, Jour. As. Soc. Beng. 1891, p. 195.

Hab. Java (*Piepers*); Sambawa, Bali, Lombok (*Doherty*); Amboina (*coll. Snellen*); Philippines?

Though the characters given in the table to separate this from the last species are fairly constant, yet I have two females from the Philippines which have the hind wing below rather as in *obscurus*. Neither of these species is recorded by Semper from the Philippines.

TAGIADES GANA.

Pterygospidea gana, Moore, P. Z. S. 1865, p. 180.
Tagiades gana, Distant, Rhop. Mal. p. 388, pl. xxxiv. fig. 2, ♂ (1886).

Specimens from Java, Nias, Perak, and Pulo Laut are constantly smaller than those from Sikkim.

Hab. Sikkim (*Möller*); Perak, Pulo Laut (*Doherty*); Java (*Fruhstorfer*); Andamans (*de Roepstorff*); Palawan (*Platen in coll. Staudinger*).

! TAGIADES KAREA.

Tagiades karea, Mabille, Comptes Rendus Soc. Ent. Belg. iv. no. 16, p. lxxiii (1891); Semper, Schmett. Philipp. p. 308 (1892).

Hab. Philippines, generally distributed (*Semper*).

! TAGIADES ELEGANS.

Tagiades elegans, Mabille, Bull. Soc. Ent. Fr. 1877, p. xl; Semper, Schmett. Philipp. p. 309, pl. xlix. fig. 4, ♂ (1892).

Hab. Luzon, E. Mindanao (*Semper*).

! Tagiades lavata.

Tagiades lavata, Butler, Trans. Linn. Soc. Lond. Zoology, ser. 2, vol. i. p. 557, pl. lxix. fig 8 (1877); Distant, Rhop. Mal. p. 389, pl. xxxiv. fig. 5.

Hab. N. Borneo (*Pryer*); Kina Balu, Borneo (*Waterstradt*); Tavoy (*Pitman*); Bunguran, Natuna Island (*Everett*).

! Tagiades titus. (Plate XX. fig. 15, ♂.)

Tagiades titus, Plötz, Jahrb. Nass. Ver. xxxvii. p. 46 (1884); Semper, Schmett. Philipp. p. 310 (1892).

Tagiades latreillei, Mabille, *fide* Semper.

Tagiades japetus, var. *latreillei*, Staudinger, Iris, ii. p. 160 (1889) (*fide* Semper).

Male. Hind wing below white, with a blackish border round the costa and termen, its inner edge suffused; a feebly indicated dark spot near the middle of cell 3, a geminate spot in cells 4–5 and a larger one in cell 6 blackish. In the female the hind wing below is paler and the pale discal portion is bluish white.

Hab. Philippines (*Semper*); Palawan (*Staudinger*).

Tagiades pteria.

Pterygospidea pteria, Hewitson, Descr. Hesp. p. 51 (1868); id. Exot. Butt. v., *Pterygospidea*, pl. i. fig. 1 (1873).

Tagiades pteria, Semper, Schmett. Philipp. p. 308 (1892).

In this species the hind wing above resembles that of *T. pralaya* or *T. trichoneura*, save that the pale part is white or yellowish white instead of yellow; it is distinguished from these species by the small and roundish hyaline spots in cells 2 and 3 and the want of hyaline spots in cells 10 and 11 of the fore wing.

Hab. E. Mindanao (*Semper*).

! Tagiades menaka.

Pterygospidea menaka, Moore, P. Z. S. 1865, p. 778.

Tagiades atticus, Leech, Butt. China &c. pl. xxxviii. fig. 13, (1892–94), *nec* Fabr.

The dark spot near the apical third of cell 1 *b* in the hind wing is absolutely diagnostic of this species. It does not appear that this species ever has more than one pale spot in the cell of the fore wing, but this character *alone* will not separate it from those specimens of *T. atticus* which want the lowermost pale spot in the cell of the fore wing.

Hab. N.W. Himalaya (*Young*); Nipal; Sikkim (*Möller*); Khasias; Nagas, E. Pegu (*Doherty*).

! Tagiades atticus. (Plate XXII. fig. 13.)

Hesperia atticus, Fabricius, Ent. Syst. iii., i. p. 339 (1793).
Tagiades atticus, Moore, Lep. Cey. vol. i. p. 175, pl. lxviii. fig. 2 (1880–81); Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 389, pl. xvii. fig. 10, ♀.
Tagiades calligana, Butler, Trans. Linn. Soc. Lond. Zoology, ser. 2, vol. i. p. 556, pl. lxix. fig. 11.
Tagiades atticus, var. *calligana*, Distant, Rhop. Mal. p. 387, pl. xxxiv. fig. 6.
Tagiades menaka, Staudinger, Iris, ii. p. 159 (1889).
Tagiades litigiosa, Möschler, Verh. zool.-bot. Wien, xlviii. p. 230 (1878).

Hab. Sikkim (*Möller*); Nagas, E. Pegu, Pulo Laut (*Doherty*); Palawan (*Platen*); Java (*coll. Stgr.*).

We are indebted to Dr. Staudinger for the opportunity of examining the type of *litigiosa*, Möschl., from "India ? Silhet."

! Tagiades waterstradti, n. sp. (Plate XX. fig. 7, ♂.)

♂ ♀. Nearest to *T. atticus*, Fab., from which it differs in the following points:— On the fore wing there is no hyaline spot in cells 2 and 3, and only one (the uppermost) in the cell, and on the hind wing above the black basal portion is more extensive, the dorsum being black for at least half its length, and the black terminal spot on vein 1 *b* is at least twice as large as those on veins 2, 3, and 4.

Expanse $36\frac{1}{2}$–$38\frac{1}{2}$ mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from three specimens ex coll. Staudinger, one of which is now in coll. Elwes.

! Tagiades martinus.

Tagiades martinus, Plötz, Jahrb. Nass. Ver. xxxvii. p. 47 (1884); Semper, Schmett. Philipp. p. 309, pl. xlix. fig. 3, ♂ (1892).

Hab. Amboina, Philippines, Aru Islands, Mysol (*Semper*); Celebes (*coll. Stgr.*).

! Tagiades sambavana, n. sp. (Plate XX. fig. 10, ♂; Plate XXII. fig. 14.)

Very similar to *T. atticus*, but on the hind wing below the black spot in the cell is wanting or very small, and on the upperside there are sometimes two white points near the apical third of cell 1 *a* in the fore wing (as seen in *T. trichoneura* and *T. pralaya*). The species is however well distinguished by the clasp-form of the male. In *T. atticus* the apical part of the clasp is triangular and its apex, instead of being deflexed and serrate as in *T. menaka*, is simple; in *T. sambavana* the clasp has a short spiniform tooth near the middle of its upper edge, and beyond this, at a distance about equal to the distance of the short tooth from the base of the clasp, there arises a long curved acuminate horn, which is about equal in length to the greatest width of the clasp.

Hab. Sambawa, Bali (*Doherty*). Described from eight males and one female in coll. Elwes.

! Tagiades nana, n. sp. (Plate XX. fig. 13, ♂.)

♂. Upperside dark olive-brown, with a pure white patch next the tornus of the hind wing bearing two black spots. Fore wing with nine transparent white points placed as follows, namely, two near the apex of the cell, one near the basal third of cell 3, one near the middle of each of cells 4, 5, and 6, one near the basal third of cell 7, one near the middle of cell 8, and one near the apex of cell 11; fringe concolorous. Hind wing with a pure white patch reaching from the dorsum as far as vein 3, and one-fourth or one-fifth the length of the wing, its inner edge rather sharply defined; a large spot at the apex of vein 1 *b* and a smaller one at the apex of vein 2, black; fringe white from the tornus to vein 4, thence dark brown. Underside: fore wing a little paler than above: hind wing bluish white, costal region as far as vein 6 brown, the colours suffused; a large black spot near the middle of cells 4–5, a smaller one in cell 6, and the indication of one or more dark spots nearer the base of the wing; on the pale part of the wing there is a fine black terminal line, which expands into triangular spots at the apices of veins 1 *b*, 2, and 3. Body above dark olive-brown, abdomen beneath bluish white.

Expanse 32 mm.

This, the smallest of the genus known to us, appears quite distinct; the type specimen is in my collection.

Hab. Khasia hills (native collectors, *fide Doncaster*); island of Nias (*in coll. Rothschild*).

Tagiades toba.

Tagiades toba, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1896, p. 19, pl. T. fig. 47, ♂.

"*Male*. Upperside: both wings deep black. Fore wing with the following transparent white dots:—Two placed outwardly obliquely towards the outer end of the discoidal cell, the lower one sometimes missing; a costal one placed between the costal nervure and first subcostal nervule; one in the second median interspace; and five subapical forming a perfect S-shaped figure. Cilia fuscous. Hind wing with the anal angle broadly, as far as the second median nervule pure white, bearing a large round black spot on the margin in the submedian interspace, and a small one in the first median interspace; a fine black anteciliary line in the white area. Cilia anteriorly fuscous, posteriorly and along the abdominal margin pure white; very long at the anal angle. Underside: both wings dull black. Fore wing with the dots as on the upperside, a pale suffused twinned spot towards the outer angle in the submedian interspace. Hind wing almost entirely white, the costa and apex broadly, a narrow anteciliary line alone being of the dull black ground-colour; the posterior edge of the blackish area bearing four rounded deep black spots; the two black spots on the outer margin as on the upperside. Thorax and abdomen above black, but the latter tipped with white. Palpi beneath, thorax, legs, and abdomen beneath pure white."

Expanse 34–35 mm.

Hab. Battak Mountains, N.E. Sumatra (*fide de Nicéville*).

After our description and figure of *T. nana* were printed we received Mr. de Nicéville's description and figure of his *T. toba*, which, judging from the figure, appears to be the same as *T. nana*, although the spots on the termen of the hind wing, which he describes as lying in the submedian and first median interspaces respectively, are represented as originating on the apices of the veins, and the figure of the hind wing below shows *three* simple veins between the median vein and the dorsum.

! TAGIADES NESTUS. (Plate XX. fig. 12, ♂.)

Pterygospidea nestus, Felder, Sitz. Ak. Wiss., math.-nat. Cl. xl. p. 461 (1860).

Hab. Amboina (*Felder*); Batchian (*fide Staudinger*).

! TAGIADES DEALBATA.

Tagiades dealbata, Distant, Rhop. Mal. p. 388, pl. xxxv. fig. 25 (1886).

Hab. Upper Assam, Perak, Pulo Laut (*Doherty*); Burmah (*Adamson*).

! TAGIADES PRINCEPS.

Tagiades princeps, Staudinger, *in litt.*; Semper, Schmett. Philipp. p. 307, pl. xlix. fig. 5, ♂ (1892).

Hab. Mindanao (*Semper*).

! TAGIADES PRALAYA.

Pterygospidea pralaya, Moore, P. Z. S. 1865, p. 779.

In this species and the next the intermediate tibiæ of the males are penicillate.

Hab. Sikkim (*Möller*); Khasias (*Hamilton*).

! TAGIADES TRICHONEURA.

Pterygospidea trichoneura, Felder, Wien. ent. Mon. vol. iv. p. 402 (1860); id. Reise Nov., Lep. vol. iii. pl. lxxiii. figs. 14, 15 (1867).

Tagiades trichoneura, var., Distant, Rhop. Mal. p. 389, pl. xxxiv. fig. 20 (1886).

Hab. E. Pegu, Perak, Arjuno, Java (*Doherty*). The specimens from the last-named locality have the hind wing below of a deeper yellow.

! Var. TRICHONEUROIDES, Stgr. MS.

Only differs in the particulars set forth in the table above.

Hab. Kina Balu, Borneo (*Waterstradt*).

! TAGIADES PINWILLI.

Plesioneura pinwilli, Butler, Trans. Linn. Soc. Lond., Zoology, ser. 2, vol. i. p. 556, pl. lxviii. fig. 4 (1877); Distant, Rhop. Mal. p. 400, pl. xxxv. fig. 29, ♂.

Celænorrhinus pinwilli, Watson, Hesp. Ind. p. 144 (1891).

Hab. Margherita, Assam, E. Pegu (*Doherty*); Malacca (*Pinwill*); Tameang Lajang, S.E. Borneo (*in coll. Rothschild*).

TAGIADES TABRICA.

Pterygospidea tabrica, Hewitson, Exot. Butt. v. pl. lix. fig. 8 (1873).
Celænorrhinus tabrica, Watson, Hesp. Ind. p. 143 (1891).

Hab. Darjeeling (*Roberts, fide Hewitson*).

Hewitson's type in the British Museum is a male, and it is very remarkable that if it really came from Darjeeling no other example has since been obtained.

TAPENA.

Tapena, Moore, Lep. Cey. i. p. 181 (1881); Watson, P. Z. S. 1893, p. 60. Type *thwaitesi*, Moore.

A genus of few species closely allied to the next, but distinguished by the single angulation of the termen of the hind wing, which occurs at the apex of vein 3. The hyaline spots in the fore wing of the male in all the species known to us are present only in cells 6, 7, and 8, but there is sometimes an indication of two others in cells 10 and 11; in the hind wing there is sometimes one in the cell near the transverse vein.

In the males the clasp is wider than usual, and the upper lobe is developed into one or more processes which, when *in situ*, lie upon the back of the tegumen and evidently effect the depression of that organ in proportion as the inner faces of the clasps approach each other. This structure is also found in the males of *Ctenoptilum*.

The following is a table of the species at present known to us:—

Males.

1 (2). Upper lobe of clasp bifid at the apex . . . . . *thwaitesi*, Moore.
2 (1). Upper lobe of clasp not bifid at the apex.
3 (4). Upper lobe of clasp with three limbs, all of which are serrate. Similar to *thwaitesi*, but smaller and paler above . . . . . *minuscula*, n. sp.
4 (3). Upper lobe of clasp with two limbs, of which the lower is serrate and the upper simple. Size of *thwaitesi*, but upperside in the male nearly uniform dark umber-brown . . . . . *hampsoni*, n. sp.

! TAPENA THWAITESI. (Plate XXII. fig. 15.)

? *Tapena thwaitesi*, Moore, Lep. Cey. i. p. 181, pl. lxvii. figs. 2, 2 *a*, ♂ (1881); Watson, Hesp. Ind. p. 122 (1891).

Hab. Perak (*Doherty*); Selesseh, Sumatra (*in coll. Rothschild*); Kina Balu, Borneo (*Waterstradt*); Chindwin District, Burmah (*Adamson*).

As we have not been able to examine the clasp-form of a Ceylon specimen of *T. thwaitesi*, it is possible that we have not correctly identified it.

! Tapena minuscula, n. sp. (Plate XVIII. fig. 18, ♂; Plate XXII. fig. 17.)

Tapena thwaitesi, Elwes, P. Z. S. 1892, p. 659, in part.

Similar to *T. thwaitesi*, but smaller and paler. This species is best characterized by the peculiar clasp-form, which is figured.

Two males from Bernardmyo (*Doherty*) in Elwes's collection are the only ones we have seen of this species.

! Tapena hampsoni, n. sp. (Plate XVIII. fig. 19, ♂; Plate XXII. fig. 16.)

This species also is best characterized by the clasp-form of the male. It resembles *T. thwaitesi* in size, but the upperside in the male is darker and consequently the dark markings are less evident than in that species.

Female. Upperside grey-brown; fore wing with hyaline white spots as follows:—An L-shaped one in the cell, an irregular one before the middle of cell 2, a punctiform one in the base of cell 3, one in each of cells 6, 7, and 8, one in cell 11, and the indication of one (on the underside) in the base of cell 10; hind wing with a subquadrate hyaline white spot next the upper outer angle of the cell. Fringes brown in both sexes.

The hyaline spot in the cell of the hind wing is of no importance as a differential character, as it is present in some specimens and absent from others, both of this species and *T. minuscula*.

Hab. Nilgiris (*Hampson*), recorded as *T. thwaitesi*; N. Canara (*Aitken*).

Ctenoptilum.

Ctenoptilum, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 220; Watson, P. Z. S. 1893, p. 60.
Type *vasava*, Moore.

Club of antennæ finely pointed. Hind wing biangulated, produced into a tooth at the apex of veins 4 and 7, bearing on the basal half a cluster of irregular hyaline spots. Male with a tibial pencil of the ordinary form. Watson says of this genus: "Vein 8 (of fore wing) usually given out beyond the end of cell—that is, veins 7 and 8 anastomose for a portion of their basal length (this is not an invariable character; the length of the anastomosis varies in different specimens, and occasionally, though very rarely, veins 7 and 8 are free for their entire length)." In ten specimens in coll. Elwes from Sikkim, East Pegu, Akyab, and Tenasserim respectively, and in eight specimens in coll. Leech from Kiukiang and Ningpo, vein 8 is quite free from vein 7; but in two specimens in coll. Elwes from Kiukiang, Central China, veins 7 and 8 anastomose through their basal half.

The species occurring in our region may be separated as follows:—

White spot in cell 7 of fore wing reaching beyond that in cell 6.
Expanse about 34 mm. Fore wing above without any short subterminal dark band near the apex of the costa. Lower lobe of clasp broadly triangular . . . . . *vasava*, Moore.

Expanse about 38 mm. Fore wing above with a straight dark band from the costa just before the apex as far as vein 4. Lower lobe of clasp long and narrow, rounded at the apex . . . . . *chinensis*, n. sp.

White spot in cell 7 of fore wing not reaching beyond that in cell 6 . . *multiguttata*, de Nicév.

! Ctenoptilum vasava. (Plate XXII. figs. 18, 18 *a*.)

Achlyodes vasava, Moore, P. Z. S. 1865, p. 786.

Ctenoptilum vasava, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 221.

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); E. Pegu (*Doherty*).

! Ctenoptilum chinensis, n. sp. (Plate XXIII. figs. 19, 19 *a*.)

Ctenoptilum vasava, Leech, Butt. China &c. p. 575, pl. xli. fig. 13, ♂ (1893–94).

Hab. Ningpo, April (*Leech*); Kiukiang, May (*Pratt*).

Differs from *C. vasava*, Moore, in its larger size and in having a dark subterminal band on the fore wing above from the costa just before the apex as far as vein 4, and also in the clasp-form, as may be seen from the figures.

! Ctenoptilum multiguttata.

Ctenoptilum multiguttata, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 221, pl. E. fig. 10, ♂.

Hab. Akyab (*Adamson*); Tenasserim (*Bingham*).

Odontoptilum.

Odontoptilum, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 217; Watson, P. Z. S. 1893, p. 61. Type *sura*, Moore.

Tip of antennæ blunt. Male with the fore coxæ heavily scaled and having on the inner side a thick tuft of long straight hairs, somewhat exceeding the joint in length and springing, for the most part, from the base of the joint. In the male genitalia both the clasps and the tegumen are unsymmetrical, the excess of development in both cases being on the right side. The angulation of the hind wing presents three forms: one represented by *sura*, Moore, and *helias*, Feld., a second represented by *pygela*, Hew., and a third represented by *leptogramma*, Hew.

The species known to us we separate as follows:—

1 (4). Termen of hind wing once angulated, at vein 7.

2 (3). Male: long hairs clothing the apex of the scapulæ of varying lengths and somewhat spreading, not collected into a pencil . . . . . *sura*, Moore.

3 (2). Male: long hairs clothing the apex of the scapulæ subequal in length and collected into a distinct pencil lying on each side of the thorax . *helias*, Feld.

4 (1). Termen of hind wing more than once angulated.

5 (6). Termen of hind wing twice angulated, at veins 4 and 7 . . . . . *pygela*, Hew.

6 (5). Termen of hind wing thrice angulated, at veins 3, 6, and 7 . . . . *leptogramma*, Hew.

! ODONTOPTILUM SURA.

Achlyodes sura, Moore, P. Z. S. 1865, p. 786.

Abaratha sura, Distant, Rhop. Mal. p. 390, pl. xxxiv. fig. 16, ♂ (1886).

Odontoptilum sura, Watson, Hesp. Ind. p. 105 (1891).

? *Pterygospidea angulata*, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xii. p. 488 (1862); id. Reise Nov., Lep. iii. p. 529, pl. lxxiii. figs. 10, 11, ♂ (1867).

We use the name of *sura* in preference to that of *angulata*, Feld., adopted by Watson, which has three years' priority, because we cannot identify Felder's species with any certainty. He gives the habitat of *angulata* as China and Luzon, and his figure represents a species with a strongly angled band on the fore wing above, such as we have never seen in *sura*.

Hab. Mandi (*Young*); Sikkim (*Möller*); Nagas, Burmah, Bali, Sambawa (*Doherty*); Java (*Fruhstorfer*).

! ODONTOPTILUM HELIAS.

Pterygospidea helias, Felder, Reise Nov., Lep. iii. p. 529, pl. lxxiii. figs. 12, 13 (1867).

Odontoptilum helias, var. *helisa*, Semper, Schmett. Philipp. p. 311 (1892).

Hab. Celebes (*Felder*); Luzon, Samar, Bohol, E. Mindanao (*Semper*).

A male and female of the variety *helisa*, Stgr. *in litt.*, from Luzon differ from typical *helias* in their smaller size and in having the pale preapical fourth of cell 1 *a* on the fore wing below and a spot near the base of that cell clothed with bluish-white scales. The hair-pencil on the scapulæ of the male is brown, very pale in the basal half and dark in its apical half, whereas in *helias* the entire pencil is blackish brown.

ODONTOPTILUM HYPERIDES.

Abaratha hyperides, Doherty, Jour. As. Soc. Beng. 1891, p. 195.

"Very near *Pterygospidea helias*, Feld., from the Celebes, but the bands and the discal hyaline spots of the fore wing are absent, and the apex of the hind wing is broadly dark. From *A. sura* it differs in the fore wing, which is almost uniform dark brown above and below. The hind wing is also less variegated above and below, the white area is larger and more uniform, the inner line of spots is obsolete, the outer united, and dark apically, nearly obliterated by white scales in the median spaces.

"*Hab.* Sambawa.

"Another species, more like *A. angulatus*, was found in Sumba, but no specimens have survived." (*Doherty, l. c.*)

We have not seen this species and do not know where the type is.

! ODONTOPTILUM PYGELA.

Pterygospidea pygela, Hewitson, Dese. Hesp. p. 53 (1868); id. Exot. Butt. vol. v., *Pterygospidea*, pl. i. fig. 3 (1873).

Abaratha pygela, Distant, Rhop. Mal. p. 390, pl. xxxiv. fig. 18 (1886)

Hab. Perak, E. Pegu (*Doherty*); Palawan (*Platen*).

! Odontoptilum leptogramma.

Pterygospidea leptogramma, Hewitson, Descr. Hesp. p. 53 (1868) ; id. Exot. Butt. vol. v., *Pterygospidea*, pl. i. fig. 4 (1873).

Odontoptilum leptogramma, Semper, Schmett. Philipp. p. 311 (1892).

Hab. Bohol, Camiguin de Mindanao, Panaon, Mindanao (*Semper*).

Caprona.

Caprona, Wallengren, Rhop. Caffr. p. 51 (1857) ; Watson, P. Z. S. 1893, p. 62. Type *pillaana*, Wallgr.

Abaratha, Moore, Lep. Cey. i. p. 181 (1881). Type *ransonnettii*, Feld.

This genus is given by Watson as closely allied to the last ; and, apparently, separated for the most part on account of the secondary male character, which he describes as a radiating tuft of hairs attached to the fore coxæ. This radiating tuft of hairs we have not been able to see, but in *ransonnettii*, Feld., and *syrichthus*, Feld., the fore coxæ in the male are heavily scaled, as in *Odontoptilum*, and bear on the inner side a tuft of long straight hairs, which only differs from that found in *Odontoptilum* in that the hairs are black and more than twice as long as the coxa. The genus is further distinguished from its allies by the possession of two small hyaline spots near the middle of cell 1 *a* in the fore wing in addition to the usual discal and subapical series, and the termen of the hind wing is more or less produced at the apex of veins 2, 3, and 6, besides the main angulations at veins 4 and 7.

The diagnostic characters of the species here dealt with are expressed in the following table :—

No terminal row of pale spots on the fore wing above.	
No hyaline spot in the cell of the fore wing near the middle. Right clasp elongate, bifid at the apex ; left one simple	*ransonnettii*, Feld.
With a hyaline spot in the cell of the fore wing near the middle.	
Hind wing below with a little white scaling near the base, and three series of short dark brown transverse lines—two in the basal series, two in the median, and five in the postmedian. Right clasp simple, left one dissimilar, suddenly narrowed at the apex	*saraya*, Dohy.
Underside "frosted with white throughout, except very narrowly along the outer margins of both wings"	*alida*, de Nicév.
A complete terminal row of pale spots on the fore wing above	*syrichthus*, Feld.

! Caprona ransonnettii. (Plate XXIII. figs. 20, 20 *a*.)

Pterygospidea ransonnettii, Felder, Verh. zool.-bot. Gesellsch. Wien, 1868, p. 284.

Pterygospidea potiphera, Hewitson, Exot. Butt. vol. v., *Pterygospidea*, pl. i. fig. 7 (1873).

Abaratha ransonnettii, Moore, Lep. Cey. vol. i. p. 182, pl. xcvii. fig. 1 (1881).

Abaratha taylorii, de Nicéville, Jour. As. Soc. Beng. 1883, p. 88, pl. x. fig. 13, ♂.

We have no hesitation in treating *taylorii* as a synonym, as we have Nilgiri specimens which agree with it precisely.

Hab. Ceylon; Nilgiri hills (*Hampson*); N. Canara (*Aitken*); Travancore, Orissa (*fide de Nicéville*); Khasia hills (*Hamilton*).

! Caprona saraya. (Plate XVIII. fig. 20, ♂; Plate XXIII. figs. 21, 21 *a*.)

? *Abaratha saraya*, Doherty, Jour. As. Soc. Beng. 1886, p. 138.

The *C. saraya* of this paper is the same as that of the British Museum collection, where there are three specimens thus named, which had been originally labelled on the pin *taylorii*, de Nicév. These specimens all come from "Futeh Khan's Bungalow, Kootur, Chittarpahar: probably 3000 feet."

It is, however, doubtful if they are correctly identified; because, according to the original description, the hind wing below in *C. saraya* has "a black transverse streak at the end of the cell, a fainter one near the base of the cell, and a circle of large and conspicuous black spots, nine in all, round the disc, whereof two are between the costal and the subcostal, and two between the median and submedian veins." *C. saraya* was described from a single male.

Hab. Kumaon, 3500 feet (*Doherty*).

! Caprona alida.

Abaratha alida, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 394, pl. G. fig. 40, ♂.

Fore wing with a small round white transparent spot about the middle of the discoidal cell. "Underside: both wings thickly overlaid with large pure white scales, so that the dark ground-colour is entirely hidden except narrowly along the outer margins, the whole wing surface having the appearance of being thickly strewn with hoar-frost."

Very similar in appearance to *C. ransonnettii*, but the latter wants the hyaline spot near the middle of the cell of the fore wing.

Hab. Tilin Yaw, Upper Burmah (*Watson*); Upper Chindwin River (*Adamson*).

! Caprona syrichthus.

Pterygospidea syrichthus, Felder, Reise Nov., Lep. vol. iii. p. 530, pl. lxxii. figs. 22, 23 (1867).
Abaratha syrichthus, Elwes, P. Z. S. 1892, p. 656, pl. xliii. fig. 2, var. ?
Pyrgus agama, Moore, Cat. Lep. Mus. E.I. C. vol. i. p. 249, pl. vii. figs. 1 (larva), 1 *a* (pupa) (1857).
Caprona elwesi, Wats. *in litt.*

The specimens from Bernardmyo, which Elwes figured as a variety of *C. syrichthus*, are remarkable for their small size; the smallest expands only 28 mm. As, however, there is no difference in the genitalia, we consider that the name of *C. elwesi* given by Watson to this form cannot stand.

Hab. Bhamo, Burmah (*Adamson*); Shan hills (*Manders*); Burmah, Bali (*Doherty*); West Java.

Carcharodus.

Carcharodus, Hübner, Verz. p. 110 (1816); Watson, P. Z. S. 1893, p. 67. Type *lavateræ*, Esp.
Spilothyrus, Dup. Pap. Fr. Diurn., Suppl. p. 415 (1832). Type *alceæ*, Esp.

A genus well distinguished by its facies. Fore wing with a dark basal shade and hyaline spots. Termen of the hind wing crenulate.

The following table includes all the known species:—

Fore wing below with no tuft of hair in the male.
  Fore wing with the hyaline spot in cell 2 wider than high . . . . . *lavateræ*, Esp.
  Fore wing with the hyaline spot in cell 2 higher than wide . . . . . *alceæ*, Esp.
Fore wing below with a tuft of hair in the male . . . . . *altheæ*, Hübn.

! Carcharodus lavateræ.

Papilio lavateræ, Esper, Schmett. i. 2, pl. lxxxii. fig. 4 (1783); Hübner, Eur. Schmett. i. figs. 454, 455 (1798–1803).

Hab. Central Europe to Asia Minor.

! Carcharodus alceæ.

Papilio alceæ, Esper, Schmett. i. 2, pl. li. fig. 3 (1780).
Pyrgus dravira, Moore, P. Z. S. 1874, p. 576, pl. lxvii. fig. 5; de Nicéville, Jour. As. Soc. Beng. 1883, p. 88, pl. x. fig. 5, ♀.
Carcharodus swinhoei, Watson, P. Z. S. 1893, p. 68.

There is no difference in the genitalia of the Western and Eastern forms, and we see no reason for separating them. It is true that the desert form *swinhoei*, Watson, found in Beluchistan, is much paler than the Himalayan form *dravira*, Moore's figure of which is very bad, but we find similar variations in colour almost as striking amongst European specimens.

Hab. Central and Southern Europe to Central Asia and N.W. Himalayas up to 9000 feet.

Carcharodus altheæ.

Papilio altheæ, Hübner, Eur. Schmett. i. figs. 452, 453 (1798–1803).

This species also varies from dark to light grey-brown.

The eggs, larva, and pupa are described by Heinrich Gross (Stett. ent. Zeit. 1894, p. 77); the eggs were laid and the larva fed on *Betonica officinalis*.

Hab. Central and Southern Europe to Central Asia.

Gomalia.

Gomalia, Moore, P. Z. S. 1879, p. 114; Watson, P. Z. S. 1893, p. 67. Type *albofasciata,* Moore.

A genus of one or two small species differing from *Hesperia* in facies and the slender and straight club of the antennæ. Male with a costal fold but no tibial hair-pencil.

! Gomalia albofasciata.

Gomalia albofasciata, Moore, P. Z. S. 1879, p. 144; id. Lep. Cey. vol. i. p. 183, pl. lxxi. fig. 7 (1881).

? *Gomalia littoralis,* Swinhoe, P. Z. S. 1884, p. 513, pl. xlvii. fig. 4.

Hab. S. India (*Hampson*); Hambantota, Ceylon (*Green*); Karachi (*fide Swinhoe*); Quetta, Beluchistan (*Murray in coll. Swinhoe*).

We have not seen the type of *littoralis*, but, judging from the description and figure, it is indistinguishable from *albofasciata*, like specimens from Quetta which we have examined.

Hesperia.

Hesperia, Fab. Ent. Syst. iii. vol. i. p. 258 (1793); Watson, P. Z. S. 1893, p. 64. Type *malvæ,* Linn.

Pyrgus, Hübn. Verz. p. 109 (1816). Type *syrichtus,* Fab.

Syrichthus, Boisd. Icones, p. 230 (1832–33). Type *proto,* Esp

Scelothrix, Rambur, Cat. Lép. And. i. p. 63 (1858). Type *carthami,* Hübn.

A numerous group of closely allied species, which are associated together on account of their resemblance to the *Papilio malvæ* of Linnæus. According to Watson, it is separable from *Carcharodus*, Hübn., by the even termen of the hind wing, from *Gomalia*, Moore, by the curved club to the antennæ, and from *Thanaos*, Bdv., which has a comparatively slender antennal club, by the robust club of its antennæ. The following pale spots on a darker ground constitute what may be considered as the normal pattern of the hind wing below, namely:—one occupying the whole or part only of cell 1 *a*; three in cell 7, basal, medial, and apical; two in cell 6, basal and medial; one near the base of the cell; a large geminate one next the transverse vein and occupying the base of cells 4 and 5, and another geminate one near the apex of the same cells; one near the apex of cell 3; two in cell 2, basal and apical; and three, basal, medial, and apical, in cell 1 *b*. These pale spots fall into three irregular transverse series. The modifications of this wing-pattern are for the most part trifling, but they sometimes afford useful distinguishing characters.

The following table will serve to show what characters have been found most useful in the arrangement of the species of this difficult group in coll. Elwes; this arrangement is doubtless far from perfect, but it certainly gives a better result than any other

with which we are acquainted. The species of the *orbifer* group are exceedingly closely allied; the male genitalia and the essential wing-pattern are practically identical, but the characters given below will separate the majority of specimens. *Therapne*, Rbr., put by Staudinger as a variety of *sao*, is just as distinct from the latter as are *orbifer* and *ali*.

1 (66). Hind wing below dark, with a pale median band.
2 (57). Such band macular, generally much broken.
3 (32). Fore wing with a subterminal series of small pale spots.
4 (5). Fore wing below with a distinct white spot (not merely a pale dash) near the base of the cell. Median pale band on hind wing below continuous from veins 2–7 . . . . . *galba*, Fab.
5 (4). Fore wing below with the basal pale marking in the cell (when present) a dash, not a distinct spot.
6 (21). Hind wing below with the pale spot near the middle of cell 7 continued in cell 8.
7 (16). Hind wing below: middle spot in cell 7 not joined to that on the transverse vein, or at most only touching it in a point.
8 (15). Hind wing below with the apical third of cell 8 dark.
9 (10). Hind wing below sordid yellowish green, pale spot on the transverse vein with sharp projecting angles . . . . . *orbifer*, Hübn.
10 (9). Hind wing below tile-red (more or less bright) or pale red-brown.
11 (12). Hind wing below with the pale spot on the transverse vein not produced inwardly; wings strongly tinged with sordid yellow . . . . . *therapne*, Rbr.
12 (11). The pale spot on the transverse vein of hind wing below produced both outwardly and inwardly.
13 (14). Such spot and that in cell 1 *b* but little intensified; hind wing below tile-red . . . . . *sao*, Bergstr.
14 (13). Such spots much intensified, silver-white; hind wing below pale red-brown . . . . . *ali*, Ob.
15 (8). Hind wing below with the apical third of cell 8 pale . . . . *geron*, Wats.
16 (7). Hind wing below with the middle spot in cell 7 broadly connected with that on the transverse vein by a triangular spot in the base of cell 6.
17 (18). Hind wing above with no pale spot in the middle of cell 7. No costal fold in the male . . . . . *phlomidis*, H.-S.
18 (17). Hind wing above with a pale spot in the middle of cell 7. Male with a costal fold.
19 (20). No tibial hair-pencil in the male, but several short spines on the outer side of hind tibiæ . . . . . *cribrellum*, Evers.
20 (19). Male with a tibial hair-pencil[1] . . . . . *cynaræ*, Rbr.

[1] *Fide* Watson. There is no male of this species in coll. Elwes, and only one female. The latter can only be separated from *cribrellum* by its name-label.

21 (6). Hind wing below with the pale spot in the middle of cell 7 not continued in cell 8.

22 (27). Hind wing below with the outermost pale spot in cell 7 adjoining or near the termen.

23 (26). Hind wing below with the pale median band conspicuously broken inwardly at cell 7.

24 (25). Species smaller (exp. 30–38 mm.) and paler. Pale spots on upperside relatively larger . . . . . *tessellum*, Hübn.

25 (24). Species larger (exp. 40–45 mm.) and darker. Pale spots on upperside relatively smaller . . . . . *gigas*, Brem.

26 (23). Hind wing below with the pale median band continuous and equally wide in cells 3 to 7 inclusive . . . . . *nobilis*, Stgr.

27 (22). Hind wing below with the outermost pale spot in cell 7 remote from the termen.

28 (29). Costal fold inconspicuous, apparently absent; no tibial hair-pencil . . . . . *poggei*, Led.

29 (28). Costal fold conspicuous; no tibial hair-pencil.

30 (31). Hind wing below: inner edge of the outermost spot in cell 7 in line with the transverse vein. Size generally smaller. Subapical notch of clasp with an erect tooth . . . . . *proto*, Esper.

31 (30). Hind wing below: inner edge of the outermost spot in cell 7 not in line with the transverse vein. Size larger. Subapical notch of clasp without a tooth. . . . . *staudingeri*, Speyer.

32 (3). No subterminal series of small pale spots on fore wing.

33 (36). With a tibial hair-pencil but no costal fold in the male. Hind wing below with the pale macular band ending in a spot at the apex of cell 1 *b*.

34 (35). Hind wing above usually without pale markings . . . . . [1]*cashmirensis*, Moore.

35 (34). Hind wing above with conspicuous pale markings . . . . . [1]*alpina*, Ersch.

36 (33). Tibial hair-pencil and costal fold both present in the male. Hind wing below with the macular band ending in a spot in the middle of cell 1 *b*.

37 (50). Hind wing below with the spot on the transverse vein straight-sided within.[2]

38 (49). Hind wing below with the markings sharply defined.

39 (40). Hind wing below with an irregular continuous pale terminal band[3] . . . . . *carthami*, Hübn.

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[1] These two species are exceedingly closely allied. It seems doubtful whether *alpina* is not a geographical race of *cashmirensis*.

[2] This character is not absolute. Exceptions occur in *H. malvæ* and some others; but *malvæ* is a well-known species, and the other exceptions occur so sparingly that the practical utility of the character is not affected.

[3] This character is not absolutely diagnostic of *carthami*, but in practice it is found that its occurrence in other species is rare and obviously abnormal.

40 (39).	Hind wing below without an irrregular continuous pale terminal band.	
41 (48).	Apex of tegumen undivided.	
42 (47).	Tegumen without lateral horns.	
43 (46).	Apical lobe of clasp much expanded, broadly and evenly rounded in a semicircle.	
44 (45).	Fore wing below greenish grey-brown; hind wing below with a pale dot normally present in cell 6	[1]*serratulæ*, Rbr.
45 (44).	Fore wing below blackish brown; hind wing below normally without a pale dot in cell 6	[2]*speyeri*, Stgr.
46 (43).	Apical lobe of clasp not expanded in a semicircle	[1]*alveus*, Hübn.
47 (42).	Tegumen with a horn on each side, tip compressed. Clasp of the same type as *zona*	*malvoides*, n. sp.
48 (41).	Apex of tegumen bipartite	*malvæ*, Linn.
49 (38).	Markings of hind wing below obsolescent by reason of general paleness. Tegumen with a branched horn on each side .	*melotis*, Dup.
50 (37).	Hind wing below with the pale spot on the transverse vein produced inwardly towards the origin of vein 7.[3]	
51 (54).	Hind wing below with a pale dash in cell 1 *b* near the base.	
52 (53).	Fore wing above with a straight oblique pale macular band from the costa beyond the middle to the dorsum before the middle	*andromedæ*, Wlgrn.
53 (52).	No such band on fore wing above	[4]*cacaliæ*, Rbr.
54 (51).	Hind wing below with the pale basal marking in cell 1 *b* a spot, not a dash.	
55 (56).	Hind wing below pale sordid yellowish- or russet-green . . .	*onopordi*, Rbr.
56 (55).	Hind wing below dark (usually blackish) green	*centaureæ*, Rbr.
57 (2).	Hind wing below with the pale median band sharply defined, narrow, non-macular, and preceded by a broad irregular brown band, which bears a small pale spot near the basal third of cell 7; or if macular, then not interrupted, and preceded by a dark Y-shaped marking reaching quite across the wing and followed by a dark subterminal band.	
58 (61).	Hind wing below with the pale median band preceded by a large dark Y-shaped marking reaching quite across the wing and followed by a dark subterminal band.	
59 (60).	No dark terminal band on hind wing below	*bieti*, Ob.

[1] We cannot distinguish with certainty between *serratulæ* and *alveus*, except by the male genitalia. If we make the presence or absence of pale markings on the hind wing above the basis of separation, we find that this character varies too much to be reliable; if, on the other hand, we use the male genitalia, we get two forms which do not intergrade. The male genitalia can always be referred with certainty to their respective types, although both kinds are known to occur in the same locality, as at Vernet and Mont Cenis.

[2] Very near the preceding, and probably not distinct.

[3] *Vide* note to paragraph 37.

[4] This insect has the same type of clasp form as *andromedæ*.

60 (59). Hind wing below with a dark terminal band separated from the dark subterminal band by a zigzag white line or row of irregular spots . . . . . *oberthüri*, Leech.

61 (58). Hind wing below with the pale median band preceded by a broad irregular brown band, which bears a small pale spot near the basal third of cell 7.

62 (63). Hind wing above with a median row of pale spots. Fore wing below with the apex yellow-brown; pale spot near the apex of cell 5 oblique, distinct from that in cell 4. No subterminal pale band on hind wing below . . . . . *zona*, Mab.

63 (62). Hind wing above with two rows of pale spots.

64 (65). Fore wing below with the apex yellow-brown; the pale spot near the apex of cell 5 oblique, distinct from that in cell 4 . *maculatus*, Brem. & [Grey.

65 (64). Fore wing below with the apex white, with a short oblique yellow-brown dash; pale spots near the apex of cells 4 and 5 coalescent, their inner edges erect . . . . . *thibetanus*, Ob.

66 (1). Hind wing below white, with two irregular orange-yellow bands narrowly margined with black.

67 (68). Fore wing above with the pale spot in the cell higher than wide, generally constricted in the middle. Male with costal fold and tibial hair-pencil . . . . . *sidæ*, Esper.

68 (67). Fore wing above with the pale spot in the cell wider than high, subrhomboidal. Neither costal fold nor tibial hair-pencil in the male . . . . . *antonia*, Speyer.

In the matter of synonymy we have restricted the references to those which appear to be necessary for the identification of the species under consideration.

! HESPERIA GALBA.

Hesperia galba, Fabricius, Ent. Syst. vol. iii. p. 352 (1793); Moore, Lep. Cey. vol. i. p. 183, pl. lxxi. fig. 6 (1881).

Pyrgus superna, Moore, P. Z. S. 1865, p. 792.

Pyrgus evanidus, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. v. p. 223 (1880).

Hesperia evanidus, Watson, Hesp. Ind. p. 156 (1891).

Pyrgus zebra, Butler, op. cit. ser. 6, vol. i. p. 207 (1888).

Hesperia zebra, Watson, Hesp. Ind. p. 156 (1891).

Hesperia hellas, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 177, pl. B. fig. 9, ♂.

I cannot see any good grounds for separating *P. zebra=hellas* (fide Watson) from *galba*. Though I have no Campbellpur specimens for comparison, yet the characters relied on by de Nicéville seem very variable. The species has a very wide range throughout the drier parts of India and extends from Burmah (*Manders*) to Aden, being apparently common in the foot-hills of the N.W. Himalaya.

! Hesperia orbifer.

Papilio orbifer, Hübner, Eur. Schmett. i. figs. 803–806 (1818–27).

Hab. S. Europe to Turkestan and Amurland.

! Hesperia therapne.

Hesperia therapne, Rambur, Ann. Soc. Ent. Fr. 1832, pl. vii. fig. 4.

Hab. Corsica, Sardinia.

! Hesperia sao.

Papilio sao, Bergstrasser, Nomencl. vol. ii. pl. xl. figs. 8, 9 (1779); Hübner, Eur. Schmett. vol. i. figs. 471, 472 (1798–1803).

Hab. Mont Cenis, Valais, 2000 ft., Kreusnach, Briançon (*Elwes*); S. Spain (*Elwes*).

! Hesperia ali.

Syrichthus ali, Oberthür, Études d'Ent. vi. p. 61, pl. ii. fig. 3.

Hab. Batna, Constantine, Algeria (*Elwes*).

! Hesperia geron. (Plate XXIII. fig. 31.)

Hesperia geron, Watson, P. Z. S. 1893, p. 66.

Though we have only one male of this species from Quetta, we think it is a distinct species.

Hab. Beluchistan (*Watson*); Shahrud, Persia (*Zeller, fide Watson*).

! Hesperia phlomidis. (Plate XXIII. fig. 30.)

Hesperia phlomidis, Herrich-Schäffer, Schmett. Eur. vol. i., *Hesp.* figs. 8, 9 (1845).

Hab. Asia Minor, Greece, Caucasus.

! Hesperia cribrellum.

Hesperia cribrellum, Eversman, Bull. Mosc. 1841, p. 25; Freyer, Neuere Beitr. vol. iv. pl. cccxlix. fig. 1 (1840?); Herrich-Schäffer, Schmett. Eur. vol. i., *Hesp.* figs. 12, 13 (1845).

Hab. S. Russia, West Asia, Turkestan, Upper Amur (*fide Graeser*).

! Hesperia cynaræ.

Hesperia cynaræ, Rambur, Faun. And. pl. viii. figs. 4, 5 (1839); Herrich-Schäffer, Schmett. Eur. vol. i., *Hesp.* figs. 4–7 (1845).

Hab. S. Russia to Turkestan.

! Hesperia tessellum.

Papilio tessellum, Hübner, Eur. Schmett. vol. i. figs. 469, 470 (1798–1803).
Hesperia tessellum, Rambur, Faun. And. pl. viii. figs. 1, 2 (1839).
Hesperia noma, Lederer, Verh. zool.-bot. Gesellsch. Wien, 1855, p. 193, pl. i. fig. 7.

Hab. S. Russia, Armenia to Central Asia.

! Hesperia gigas.

Pyrgus gigas, Bremer, Lep. Ost-Sib. p. 96, pl. viii. fig. 3 (1864).

Hab. Amurland.

! Hesperia nobilis.

Pyrgus nobilis, Staudinger. Stett. ent. Zeit. 1886, p. 255.

Hab. Turkestan.

! Hesperia poggei.

Hesperia poggei, Lederer, Wien. ent. Mon. 1858, p. 141.

Hab. Syria, Armenia to Turkestan.

! Hesperia proto. (Plate XXIII. fig. 22.)

Papilio proto, Esper, Schmett. vol. i. p. 2, pl. exxiii. figs. 5, 6 (1806 ?); Hübner, Eur. Schmett. vol. i. figs. 918–921 (1827–41).
Syrichthus mohammed, Oberthür, Bull. Ent. Soc. Fr. 1887, p. xlviii; id. Études d'Ent. xii. p. 23, pl. v. figs. 23 *a* ♂, 23 *b* ♀ (1888).

Hab. S. Spain, Portugal to Syria and Armenia; Lambessa, Algeria (*Bleuse*).

Hesperia leuzeæ.

Syrichthus leuzeæ, Oberthür, Études d'Ent. vi. p. 60, pl. iii. fig. 10 (1881).

This species, which was described from a single specimen from Boisduval's collection, appears to be nearest to *H. proto*. It may be distinguished from that species, however, by reason that the pale subterminal band on the hind wing below, which in *H. proto* is at the most only represented by a row of small indistinct pale spots, is developed into a well-defined band about two-thirds as broad as the median band.

Hab. Mascara, Algeria (*fide Oberthür*).

! Hesperia staudingeri. (Plate XXIII. fig. 23.)

Syrichthus staudingeri, Speyer, Stett. ent. Zeit. 1879, p. 344.
Pyrgus (*Syrichthus*) *proteus*, Staudinger, t. c. 1886, p. 253.

Hab. Turkestan.

! HESPERIA CASHMIRENSIS.

Pyrgus cashmirensis, Moore, P. Z. S. 1874, p. 274, pl. xliii. fig. 7.

Hab. Kulu, N.W. Himalaya 12,000 ft. (*Young*), to Kashmir (*Leech*).

! HESPERIA ALPINA.

Hesperia alveus, var. *alpina*, Erschoff, Lep. Turk. p. 24, pl. ii. fig. 18 (1874).

Hab. Turkestan (*Haberhauer*, *&c.*).

! HESPERIA CARTHAMI.

Papilio carthami, Hübner, Eur. Schmett. vol. i. figs. 720, 723 (1803–18).
Hesperia carthami, Rambur, Faun. And. pl. viii. fig. 8 (1839).

Hab. Central and South Europe, Alps and Pyrenees to 5000 ft. (*Elwes*).

! HESPERIA SERRATULÆ. (Plate XXIII. fig. 24.)

Hesperia serratulæ, Ramhur, Faun. And. pl. viii. fig. 9 (1839); Herrich-Schäffer, Schmett. Eur. vol. i., *Hesp.* figs. 18–20 (1846).

Hab. Alps to 6000 feet, Central and South Europe to Caucasus, Amasia (*Fuchs*).

! HESPERIA SPEYERI. (Plate XXIII. fig. 26.)

Scelothrix speyeri, Staudinger, Rom. Mém. sur Lép. iii. p. 153, pl. viii. figs. 5 *a*, *b*.

Hab. Amurland (*Dörries*).

! HESPERIA ALVEUS. (Plate XXIII. figs. 25, 25 *a*.)

Papilio alveus, Hübner, Eur. Schmett. i. figs. 461–463 (1798-1803).

Hab. Alps to 6000 feet, Central Europe to Amurland, Syria (*Delagrange*).

! HESPERIA MALVOIDES, n. sp. (Plate XXIII. figs. 27, 27 *a*.)

We propose this name for an insect, of which we have three specimens from Biarritz, taken by Elwes on July 25, 1887, and a single male from Granada (*Ribbe*), which has all the facies of *H. malvæ* but very distinct male genitalia. The differences in this respect will be apparent from the figures. The proportion of black hair-scales in the clothing of the second joint of the palpi appears to be considerably greater in *H. malvæ* than in *H. malvoides*.

We should not have ventured to separate this on genitalic characters alone but for the fact that the genitalia in six specimens of *H. malvæ* from Denmark, Kreusnach, Rennes, Brittany, Stettin, and Brussa are all absolutely similar *inter se*, as are the three specimens above mentioned. Probably it will be found that *H. malvoides* has a wider range and other distinctive characters.

! Hesperia malvæ. (Plate XXIII. figs. 28, 28 *a*.)

Papilio malvæ, Linnæus, Faun. Suec. p. 285. n. 1081 (1761); id. Syst. Nat. i. 2, p. 795. n. 267 (1767); Esper, Schmett. i. 1, pl. xxxvi. fig. 5 (1778).
Papilio taras, Bergstrasser, Nomencl. vol. iv. pl. xci. figs. 5, 6 (1780).
Hesperia taras, Meigen, Eur. Schmett. ii. p. 61, pl. lv. figs. 3 *a*, *b* (1830).

Hab. Europe to Amurland.

! Hesperia melotis. (Plate XXIII. fig. 29.)

Hesperia melotis, Duponchel, Lép. Fr., Suppl. i. pl. xlii. figs. 1, 2 (1832).
Pyrgus hypoleucos, Lederer, Verh. zool.-bot. Gesellsch. Wien, 1855, p. 193, pl. i. fig. 8.

Hab. Beirut, Syria (*Zach*).

! Hesperia andromedæ.

Syrichthus andromedæ, Wallengren, Vet.-Ak. Forh. 1853, p. 25; id. Lep. Scand., Rhop. p. 272 (1857).

Hab. Alps, 6000 ft. (*Elwes*); Norway (*Schoyen*).

! Hesperia cacaliæ.

Herperia cacaliæ, Rambur, Faun. And. pl. viii. figs. 6, 7 (1839); Herrich-Schäffer, Schmett. Eur. i., *Hesp.* figs. 23–25 (1846).

Hab. Alps, 6000 feet (*Elwes*).

! Hesperia onopordi. (Plate XXIII. fig. 25 *b*.)

Hesperia onopordi, Rambur, Faun. And. pl. viii. fig. 13 (1839).
Scelothrix onopordi, Rambur, Cat. Lép. And. vol. i. p. 72 (1858).

Hab. S. Spain (*Staudinger*); Batna, Algeria (*Elwes*).

This difficult species may be distinguished from *H. alveus*, of which it has been doubtfully treated as a synonym, by the pattern of the hind wing below, which in *H. onopordi* has the white spot in cells 4–5 projecting into the discoidal cell next the subcostal, whilst in *H. alveus* the spot in question has no such projection, and also by the difference in the form of the male genitalia.

! Hesperia centaureæ.

Hesperia centaureæ, Rambur, Faun. And. pl. viii. fig. 10 (1839); Herrich-Schäffer, Schmett. Eur. i., *Hesp.* figs. 1–3 (1845).

Hab. Norway, 2000–6000 ft. (*Elwes, Schoyen*); Finland (*Schilde*); Labrador (*Moeschler*); Laggan, Alberta Terr., British N. America, 5000 ft. (*Elwes*).

! Hesperia bieti.

Syrichthus bieti, Oberthür, Étud. d'Ent. xi. p. 26, pl. vi. fig. 50 (1886).
Hesperia bieti, Leech, Butt. China &c. p. 578 (1894).

Hab. Western China (*fide Leech*); N.E. Tibet (*fide Alphéraky*).

Hesperia oberthüri.

Syrichthus oberthüri, Leech, Entomologist, xxiv. Suppl. p. 59 (June 1891).
Syrichthus delavayi, Oberthür, Étud. d'Ent. xv. p. 20, pl. iii. fig. 31, ♂ (July 1891).
Hesperia oberthüri, Leech, Butt. China &c. p. 579, pl. xli. fig. 5, ♂.

Hab. Western China (*fide Leech*); Yunnan (*fide Oberthür*).

We rely on Mr. Leech's identification of *H. delavayi* with *H. oberthüri*, not having seen the former.

! Hesperia zona.

Scelothrix zona, Mabille, Ann. Soc. Ent. Fr. 1875, p. ccxiv.
Scelothrix (*Pyrgus*) *albistriga*, Mabille, t. c. 1876, p. xxvii.
Pyrgus sinicus, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xix. p. 96 (1877).
Syrichthus sinicus, Pryer, Rhop. Nihon. p. 35, pl. x. fig. 22 (1889).
Hesperia zona, Leech, Butt. China &c. p. 577, pl. xli. figs. 1, 3 (1893–4).

Hab. Japan, Shanghai (*Pryer*); Central China (*Pratt*); Korea (*Leech*).

We rely on Mr. Leech's identification of *H. sinicus* with *H. zona*, which is, we believe, correct. We do not feel equal confidence in the constancy of the characters by which he separates it from *H. maculatus*, especially as the differences in their genitalia are of degree only.

! Hesperia maculatus.

Syrichthus maculatus, Bremer & Grey, Schmett. N. China's, p. 11, pl. iii. fig. 6 (1853); Pryer, Rhop. Nihon. p. 35, pl. x. fig. 21 (1889).
Pyrgus maculatus, Ménétriés, Cat. Mus. Petr. pl. v. fig. 5 (1855).
Hesperia maculata, Leech, Butt. China, &c. p. 576, pl. xli. fig. 2, ♂ (1893–4).

Hab. Amurland (*Graeser*); Askold, Shanghai (*Pryer*).

! Hesperia thibetanus.

Syrichthus maculatus, var. *thibetanus*, Oberthür, Étud. d'Ent. xv. p. 20, pl. iii. fig. 27 (1891).
Hesperia thibetana, Leech, Butt. China &c. p. 578 (1894).

Hab. Western China (*fide Leech*).

We follow Mr. Leech in treating this as a distinct species, as our material is insufficient to decide the question; the differences noted are not, however, very striking.

! Hesperia sidæ.

Papilio sidæ, Esper, Schmett. i. 2, pl. xc. fig. 3 (1784); Hübner, Eur. Schmett. i. fig. 468 (1798–1803).

Hab. Alassio, N. Italy (*Mrs. Nicholl*); S.E. Europe; Asia Minor to Turkestan.

! Hesperia antonia.

Syrichthus antonia, Speyer, Stett. ent. Zeit. 1879, p. 342.

Hab. Turkestan, Amurland.

Thanaos.

Thanaos, Boisd. Icones, 240 (1832–33); Watson, P. Z. S. 1893, p. 69. Type *tages*, Linn.

This name is applied generically to certain species more or less resembling the *Papilio tages* of Linnæus.

We separate the species in coll. Elwes as follows:—

Male with a costal fold.
- Hind wing above without yellow spots . . . . . *tages*, Linn.
- Hind wing above with yellow spots.
  - Expanse about 35 mm. Fore wing below with the first row of pale spots beyond the end of the cell suffused and irregular. Fore wing above with the postmedian band broader, at least as broad as the width of cell 2. Tegumen with two pairs of lateral dorsal lobes, of which the pair nearest the apex are smaller, triangular, and simple, and the pair nearest the base are larger, ear-shaped, and rough with short spines . . . . . *montanus*, Brem.
  - Expanse about 30 mm. Fore wing below with the first row of pale spots beyond the end of the cell regular and well-defined. Fore wing above with the postmedian band narrower, in cell 2 about half as broad as the width of that cell. Tegumen wanting the pair of ear-shaped spinose lateral dorsal lobes . . . . . *leechii*, n. s.

Male without a costal fold.
- Fore wing above with the pale spots in cells 7 and 8 well marked. Basal angle of the lower lobe of left clasp not produced into a horn . . . . *marloyi*, Bdv.
- Fore wing above with the pale spots in cells 7 and 8 obsolete. Basal angle of the lower lobe of left clasp produced into a long curved horn . . . *pelias*, Leech.

! Thanaos tages.

Papilio tages, Linnæus, Faun. Suec. p. 286. n. 1082 (1761); id. Syst. Nat. i. 2, p. 795. n. 268 (1767); Esper, Schmett. i. 1, pl. xxiii. fig. 3 (1777); Hübner, Eur. Schmett. i. figs. 456, 457 (1798–1803).

Thanaos cervantes, Grasl. Ann. Soc. Ent. Fr. 1836, p. 558, pl. 17 B. figs. 1, 2.

Nisoniades tages, var. *sinina*, Groum-Grshimaïlo, Horæ Soc. Ent. Ross. xxv. p. 461 (1891); Leech, Butt. China &c. p. 661 (1894).

? *Thanaos popoviana*, Nordm. Bull. Mosc. 1851, ii. p. 443, pl. xii. figs. 3, 4.

Hab. Europe to Amurland.

Judging from a specimen from Koko-nor, Tibet, ex coll. Rothschild, the variety *sinina* has the ground-colour paler and greyer than is usual in *T. tages* proper, the terminal row of spots on both wings are white, the hind wing below has a well-marked

postmedian band of small white spots and a narrow white spot on the transverse vein, and on the fore wing below there are two small suffused white spots near the apical third of cell 1 *a*, separated by the intraneural fold. Having regard to the relationship of *T. montanus* and *T. nigrescens*, it is possible that *sinina* is really a distinct species from *T. tages*, but we have had no opportunity of comparing their male genitalia.

T. cervantes, Grasl., is a larger and darker form, which prevails in Andalusia, but the male genitalia are identical with those of typical *T. tages*, L.

! Thanaos montanus. (Plate XXIII. fig. 34.)

Pyrgus montanus, Bremer, Bull. Acad. Petr. iii. p. 473 (1861); id. Lep. Ost-Sib. p. 31, pl. ii. fig. 4 (1864).
Thanaos rusticanus, Butler, Jour. Linn. Soc., Zool. ix. p. 58 (1866).
Nisoniades montanus, Pryer, Rhop. Nihon. p. 35, pl. x. fig. 23 (1889).
Thanaos montanus, Leech, Butt. China &c. p. 580.

Hab. Amurland, Japan, China.

! Thanaos leechii, n. sp. (Plate XXIII. fig. 35.)

Thanaos montanus, var. *nigrescens*, Leech, Butt. China &c. p. 581, pl. xlii. fig. 2, ♂ (1894).

Distinguished from *T. montanus* by the characters given in the table above, of which the most constant are its smaller size and different male genitalia. The tegumen expands near the middle into two small, triangular, smooth, lateral dorsal lobes, as in *T. montanus*, but these are not subtended, as in that species, by a pair of much larger spinose lobes.

Hab. Wa-ssu-Kow, Ta-tsien-lu, W. China (*fide Leech*); Tchang-Kou, Tibet (*fide Oberthür*).

! Thanaos marloyi. (Plate XXIII. figs. 32, 32 *a*.)

Thanaos marloyi, Boisduval, Icones, pl. xlvii. figs. 6, 7 (1832).
Hesperia sericea, Freyer, Neuere Beitr. iii. pl. ccxlv. fig. 4 (1838); Herrich-Schäffer, Schmett. Eur. i., *Hesp.* figs. 29, 30 (1846).

Hab. S.E. Europe, Asia Minor, N. Persia, Syria.

! Thanaos pelias. (Plate XXIII. figs. 33, 33 *a*.)

Nisoniades pelias, Leech, Entomologist, xxiv. Suppl. p. 60 (June 1891).
Nisoniades erebus, Groum-Grshimaïlo, Horæ Soc. Ent. Ross. xxv. p. 461 (1891).
Thanaos pelias, Leech, Butt. China &c. p. 581, pl. xlii. fig. 3, ♂ (1893–94).

The male genitalia of *T. pelias*, Leech, and *T. erebus*, Gr.-Gr., are identical in form, as we find on examination of authentic specimens of each.

Hab. W. China, E. Tibet (*Pratt*); N.E. Tibet (*Groum-Grshimaïlo*).

Pamphila.

Pamphila, Fabricius, Ill. Mag. vi. p. 287 (1807); Watson, P. Z. S. 1893, p. 89. Type *palæmon*, Pall.
Steropes, Boisduval, Voy. Astrol. p. 167 (1832), *nom. præocc.*
Carterocephalus, Lederer, Verh. zool.-bot. Gesellsch. Wien, ii. p. 26 (1853). Type, *palæmon*, Pall.

A group of small species associated on account of their general resemblance to the *Papilio palæmon* of Pallas. Palpi porrect. Antennæ short, simply clavate. Fore wing: vein 2 arising about the middle of the lower edge of the cell; hind wing: cell 6 a little longer than cell 3. Hind tibiæ more or less fringed (at least in the male), generally with but one pair of spurs, but with two pairs in *P. abax*, Ob.

The species with which we are acquainted may be distinguished as follows:—

1 (10). Hind wing below with no pale spot near the middle of cell 8.
2 (9). Pale markings on the hind wing below non-metallic.
3 (6). Fore wing above blackish brown with yellow spots.
4 (5). Hind wing below with a subterminal series of pale spots. Hind tibiæ with one pair of spurs . . . . . *palæmon*, Pall.
5 (4). No subterminal series of pale spots on hind wing below. Hind tibiæ with two pairs of spurs . . . . . *abax*, Ob.
6 (3). Fore wing above yellow with black spots.
7 (8). Hind wing below with the pale spot on the transverse vein irregularly roundish, enclosing that vein . . . . . *silvius*, Knoch.
8 (7). Hind wing below with the pale spot on the transverse vein straight-sided within, bounded inwardly by that vein . . . . . *houangty*, Ob.
9 (2). Pale markings on the hind wing below metallic silvery white, and consisting of the following:—A streak along the upper edge of the cell from the base as far as the middle of cell 5, constricted or narrowly interrupted at its half-length, the lower edge of its outer half coalescing with a somewhat semi-circular spot in cell 4, a spot occupying the apical third of cell 6, a roundish spot near the base of cell 2, a clavate streak from the base to the middle of cell 1 *b*, and a submarginal series of oblong spots, placed one in each of cells 1 *c*, 2, and 3, sometimes feebly continued in cells 4 and 5 . . . . . *pulchra*, Leech.
10 (1). Hind wing below with a pale spot near the middle of cell 8.
11 (16). Pale markings of the upperside yellow or yellowish white.[1]
12 (13). Hind wing below with no pale spot near the apex of cells 2 and 3; the disc of the wing occupied by a large subpyriform silvery spot, which arises near the middle of cell 7, and spreads outwards and downwards by way of the transverse vein; a small pale spot near the basal third of the cell, and the indication of another near the middle of cell 6 . . . . . *avanti*, de Nicév.
13 (12). Hind wing below with a pale spot near the apex of each of cells 2 and 3.

[1] See note to paragraph 16 *post*.

14 (15). Fore wing below with a pale spot occupying the extreme base of cell 2, and another, at least twice as wide as high, near the middle of that cell . . . . . *argyrostigma*, Eversm.

15 (14). Fore wing below with no pale spot in the base of cell 2, but a subquadrate one before the middle of that cell . . . . . *flavomaculatus*, Ob.

16 (11). Pale markings on upperside pure white.[1]

17 (18). Hind wing below with the pale spots near the apex of cells 6 and 7 not connected with those near the apex of cells 2 and 3 by a pale band traversing cells 4 and 5.

17 *a* (17 *b*). Fore wing above without white spots near the base; hind wing above with two distinct unequal white discal spots . . . . *niveomaculatus*, Ob.

17 *b* (17 *a*). Fore wing above with two white spots near the base—one hyaline near the base of the cell, and the other opaque next the costa; hind wing above with a large white discal spot formed by the confluence of two unequal spots . . . . . *christophi*, Gr.-Gr.

18 (17). Hind wing below with the pale spots near the apex of cells 6 and 7 connected with those near the apex of cells 2 and 3 by a pale band traversing cells 4 and 5, and thus forming an irregular subterminal pale band.

19 (20). Fore wing below with the pale spots in cells 1 *a* and 2 remote from that near the apical third of the cell . . . . . *dieckmanni*, Graeser.

20 (19). Fore wing below with the pale spots in cells 1 *a* and 2 joined to that near the apical third of the cell to form a continuous median band . . . . . *micio*, Ob.

! PAMPHILA PALÆMON.

Papilio palæmon, Pallas, Reise, vol. i. p. 471 (1771).

Papilio paniscus, Fabricius, Syst. Ent. p. 531 (1775); Esper, Schmett. i. 1, pl. xxviii. fig. 2 (1778?); i. 2, pl. xcv. fig. 5 (1788).

Papilio brontes, Wien. Verz. p. 160 (1776); Hübner, Eur. Schmett. i. figs. 475, 476 (1798–1803).

Hesperia mandan, Edwards, Proc. Ent. Soc. Philad. vol. ii. p. 20 (1863).

Carterocephalus palæmon, Bean, Can. Ent. xxv. p. 145 (1893).

Hab. Europe to Amurland, N. America; Laggan, Alberta Terr., Brit. N. Amer., 5000 ft. (*Elwes*); Nepigon, Lake Superior (*Fletcher*).

There is no doubt in our mind that the American form described as *mandan* is identical with the European.

! PAMPHILA ABAX.

Carterocephalus abax, Oberthür, Étud. d'Ent. xi. p. 27, pl. v. fig. 27 (1886).

Pamphila abax, Leech, Butt. China &c. p. 587 (1893–4).

Hab Ta-tsien-lo (*Pratt*); Moupin, E. Tibet (*Kricheldorf*).

[1] What we identify as the female of *niveomaculatus* has the spots on the upperside yellowish instead of pure white.

! Pamphila silvius.

Papilio silvius, Knoch, Beitr. Ins. i. pl. v. figs. 1, 2 (1781); Esper, Schmett. i. 2, pl. lxxx. figs. 5, 6 (1782); Hübner, Eur. Schmett. i. figs. 477, 478 (1798–1803).

Hab. N. Europe to Amurland (*Graeser*).

! Pamphila houangty.

Carterocephalus houangty, Oberthür, Étud. d'Ent. xi. p. 27, pl. v. fig. 5 (1886).
Pamphila houangty, Leech, Butt. China &c. p. 586 (1893–4).

Hab. West China, Ta-tsien-lo (*Pratt*).

! Pamphila pulchra.

Pamphila pulchra, Leech, Entomologist, xxiv. Suppl. p. 59 (June 1891); id. Butt. China &c. p. 586, pl. xl. fig. 20, ♂ (1894).
Carterocephalus ops, Groum-Grshimaïlo, Horæ Ent. Soc. Ross. xxv. p. 460 (1891).

Hab. Ta-tsien-lo, Wa-su-Kow, West China (*Pratt*); N.E. Tibet (*Groum-Grshimaïlo, fide Leech*).

We rely on Mr. Leech's identification of *C. ops*, which we have not seen.

! Pamphila avanti.

Pamphila avanti, de Nicéville, Jour. As. Soc. Beng. 1886, p. 255, pl. xi. fig. 10, ♂; Watson, Hesp. Ind. p. 159.

Type in coll. Elwes.

Hab. Interior of Sikhim, circa 12,000 feet (*White*).

! Pamphila argyrostigma.

Steropes argyrostigma, Eversmann, Bull. Mosc. 1851, i. p. 624; Nordmann, l. c. ii. p. 442, pl. xii. figs. 1, 2 (1851).
Carterocephalus argyrostigma, Alphéraky, Mém. sur Lép. v. p. 123 (1889).
Pamphila argyrostigma, Leech, Butt. China &c. p. 585 (1893–4).

Hab. Amurland (*Eversmann*); Mongolia (*Potanine, fide Alphéraky*).

! Pamphila flavomaculatus.

Carterocephalus flavomaculatus, Oberthür, Étud. d'Ent. xi. p. 27, pl. ii. fig. 9 (1886).
Pamphila flavomaculata, Leech, Butt. China &c. p. 587 (1893–4).

Hab. West China (*Pratt*); E. Tibet (*Biet*).

! Pamphila niveomaculatus. (Plate XIX. fig. 23, ♀.)

Carterocephalus niveomaculatus, Oberthür, Étud. d'Ent. xi. p. 27, pl. ii. fig. 8 (1886).
Pamphila niveomaculata, Leech, Butt. China &c. p. 588 (1893–4).

Hab. Ta-tsien-lo and E. Tibet (*Biet*); Koko-nor, Tibet (*in coll. Rothschild*).

The female is not described or figured by M. Oberthür, though he says that he has both sexes. Two females from Koko-nor in coll. Rothschild differ in having the spots of the upperside yellowish instead of pure white, but we have little doubt that they are really females of this species.

! Pamphila christophi.

Carterocephalus christophi, Groum-Grshimaïlo, Horæ Ent. Soc. Ross. xxv. p. 460 (1891).
Pamphila niveomaculata, var. *christophi*, Leech, Butt. China &c. p. 588 (1893–4).
Aubertia dulcis, Oberthür, Étud. d'Ent. xx. p. 40, pl. ix. fig. 162 (1896).

Hab. Sinin-Shan mountains (*Groum-Grshimaïlo*); Tibet (*fide Oberthür*)

! Pamphila dieckmanni.

Carterocephalus dieckmanni, Graeser, Berl. ent. Zeits. 1888, p. 102.
Carterocephalus gemmatus, Leech, Entomologist, xxiv. Suppl. p. 59 (June 1891).
Carterocephalus demea, Oberthür, Etud. d'Ént. xv. p. 19, pl. iii. fig. 24 (July 1891).
Pamphila gemmata, Leech, Butt. China &c. p. 588 (1893–4).

Hab. Wladiwostock, Amurland (*Graeser*); Ta-tsien-lo (*Pratt*); Lutschau (*Dörries*), Blagowetshensk (*Dieckmann*), Koslofska (*Bükow in coll. Dieckmann*); Koko-nor, Tibet (*in coll. Rothschild*).

We have no hesitation in restoring Graeser's name for this species, as we have examined three typical specimens kindly lent to us by Mr. Dieckmann. As a result of the reduction of the silvery markings on the hind wing below, a specimen from Koslofska, in coll. Dieckmann, has the roundish spot proper to the cell barely indicated.

Pamphila micio.

Carterocephalus micio, Oberthür, Etud. d'Ént. xv. p. 19, pl. iii. fig. 29 (1891).
Pamphila micio, Leech, Butt. China &c. p. 589 (1894).

Hab. Tse-kou, E. Tibet (*fide Oberthür*).

Heteropterus.

Heteropterus, Duméril, Zool. Anal. p. 271 (1806); Watson, P. Z. S. 1893, p. 89. Type *morpheus*, Pall.

No hyaline spots on the wings. Antennæ less than half as long as costa, simply clavate. Palpi porrect. Fore wings long and narrow. Body long and slender. Vein 2 of fore wing arising nearer to the base of the wing than to the end of the cell. No sex-mark on the wings of the male.

1 (2). Hind wing below yellow, with twelve suboval black-margined white spots. Front tibiæ with a short spur on the inner side near the middle, hind tibiæ with two pairs of spurs. Tornus of hind wing evident . . . *morpheus*, Pall.
2 (1). Hind wing below dull greenish yellow, without suboval white spots. Front tibiæ simple, hind tibiæ with only one pair of spurs. Tornus of hind wing completely rounded off.
3 (4). Hind wing below without silvery markings . . . . . *unicolor*, Brem.
4 (3). Hind wing below with a silvery middle stripe from the base to the termen, and frequently another in cell 1 *b* . . . . . *ornatus*, Brem.

! Heteropterus morpheus.

Papilio morpheus, Pallas, Reise, vol. i. p. 471 (1771).
Papilio steropes, Wien. Verz. p. 160 (1776); Esper, Schmett. i. 1, pl. xli. fig. 1 (1778?); Hübner, Eur. Schmett. i. figs. 473, 474 (1798–1803).

In the male the hind wing below has the outer half of the fringe brown, but in the female the same fringe is brown only in spots opposite the veins.

Hab. Biarritz (*Elwes*); Europe; Korea (*Leech*); Amurland (*Graeser*).

! HETEROPTERUS UNICOLOR.

Steropes unicolor, Bremer & Grey, Schmett. N. China's, p. 10, pl. iii. fig. 3 (1853).

Cyclopides ornatus, Bremer, Bull. Acad. Petr. iii. p. 473 (1861); id. Lep. Ost-Sib. p. 33, pl. ii. fig. 5 (1864).

Cyclopides unicolor, var. *ornatus*, Stgr. Rom. Mém. vi. p. 209.

Hab. Japan (*Pryer*); Central China (*Pratt*); Amurland (*fide Staudinger*).

Though *ornatus* and *unicolor* have hitherto been treated as distinct species, I agree with Staudinger and Leech that they cannot be separated, on account of the intermediate forms. The genitalia offer no differences.

DEJEANIA.

Dejeania, Oberthür, Étud. d'Ent. xx. p. 40 (1896). Type *bicolor*, Oberthür.

Antennæ bluntly pointed, non-apiculate, half as long as the costa. Palpi porrect, second joint laxly scaled, third joint of moderate length. Fore wing: dorsum a little longer than the termen, the latter evenly curved; vein 11 free, transverse vein erect, vein 5 straight, equidistant from veins 4 and 6, vein 2 from near the half-length of the cell, vein 3 arising twice as near to vein 4 as to vein 2. Hind wing about one-fourth longer than broad, termen evenly rounded, cell a little longer than half the wing, vein 2 from beyond the half-length of the cell, vein 3 arising much before the cell-end opposite to the origin of 7, vein 5 strong, transverse vein feeble but practically erect. Tibial epiphysis present, but very small. Hind tibiæ in the male fringed, and bearing two pairs of spurs.

Allied to *Heteropterus*, Dum., in venation, palpi, and antennæ, but has the hind wing rounded at the apex instead of produced.

The above particulars are taken from authentic specimens of *Dejeania bicolor*, Ob., a brown species with a broad oblique postmedian yellow band on the fore wing, bearing a narrow dark spot on the transverse vein, and a straight narrow yellow band on the hind wing below from the apex of vein 1 *b* to the apex of vein 7.

DEJEANIA BICOLOR.

Dejeania bicolor, Oberthür, t. c. p. 40, pl. ix. fig. 163, ♂.

Hab. Tse-kou, Tibet (*Dubernard*); Siáo-Lóu (*fide Oberthür*).

BARACUS.

Baracus, Moore, Lep. Cey. i. p. 162 (1881); Watson, P. Z. S. 1893, p. 114. Type *vittatus*, Feld.

Antennæ about half as long as the costa, apiculus about as long as the diameter of the eye. Palpi ascending; third joint porrect, prominent, about one-half as long as

the diameter of the eye. Fore wing: vein 11 running closer to 12 than to 10, vein 2 arising from the distal third of the lower edge of the cell; 3, 4, 5, and 6 almost equidistant at the base, 6 and 7 from the same point. Hind tibiæ fringed and bearing two pairs of spurs.

What may be regarded as the typical wing-pattern in this genus is peculiar: the pale markings on the fore wing above consist of four oblong spots placed in two pairs, one near the base of each of cells 2 and 3, and one near the base of each of cells 6 and 7, and there is sometimes a pale spot or spots in cell 1 *a*; in the latter case the pale markings almost assume the form of a postmedian curved macular band, interrupted in cells 4 and 5. The normal pattern is found in both sexes of *B. subditus*, Moore, and *B. septentrionum*, de Nicév., but only in the female of *B. vittatus*, Felder.

The species known to us are distinguished as follows:—

Males.

1.	Upperside brown; interno-basal half of the fore wing and the entire hind wing, except the costa and the termen, pale . .	2.
	Upperside brown; fore wing with two pairs of pale spots, one in each of cells 2 and 3, 6 and 7, and sometimes one in cell 1 *a*.	3.
2.	Pale portion of upperside sordid creamy white	*vittatus*, Feld.
	Pale portion of upperside pale whitish blue	*plumbeolus*, Feld.
3.	Hind wing below ochreous brown, with a pale stripe from the base of the wing as far as the half-length of cell 5, and a terminal series of pale streaks, one in each of cells 2, 3, 4, and 6.	4.
	Hind wing below at first sight appearing yellow, with many brown streaks, but really brown sprinkled with yellow scales, and having the veins, a spot occupying the basal half of cells 4–5, and sometimes continued to the base of the wing, and a subterminal series of spots consisting of one in each of cells 2–7, of which those in cells 2, 3, and 6 are about twice as long as the others, yellow	*hampsoni*, n. sp.
4.	Expanse about 32 mm. Pale markings on the hind wing below but little paler than the ground-colour	*septentrionum*, Wood-Mason & [de Nicéville.
	Expanse about 27 mm. Pale markings on the hind wing below much paler than the ground-colour, the stripe from the base of the wing to the middle of cell 5, and another in cell 1 *b*, whitish	*subditus*, Moore.

! BARACUS VITTATUS.

Isoteinon vittatus, Felder, Verh. zool.-bot. Gesellsch. Wien, xii. p. 480 (1862).

Baracus vittatus, Moore, Lep. Cey. i. p. 162, pl. lxix. figs. 1, 1 *a* (1881); Watson, Hesp. Ind. p. 151 (1891).

Hab. Nuwara Eliya, Ceylon, 7000 feet (*Elwes*).

! Baracus plumbeolus.

Hesperia plumbeola, Felder, Reise Nov., Lep. iii. p. 519, pl. lxxi. fig. 20, ♂ (1867).

In the female of this species the blue colour of the upperside is on the hind wing less extensive than in the male, and on the fore wing is almost confined to the dorsum below vein 1 *a*, leaving the remainder of the wing brown, save for a few pale bluish scales near the base.

Hab. Luzon, Philippines (*Semper*).

! Baracus subditus.

Baracus subditus, Moore, P. Z. S. 1883, p. 534; Watson, Hesp. Ind. p. 151 (1891).

Hab. Nilgiri hills (*Hampson*); Palnai hills (*Castets*).

A specimen from the Nilgiris (*Hampson*), taken on the 14th October, has the pale markings on the hind wing below as feeble as they are in *B. septentrionum*.

! Baracus septentrionum.

Baracus septentrionum, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 379, pl. xviii. figs. 4, 4 *a*, ♂; Watson, Hesp. Ind. p. 151 (1891).

Hab. Sikkim (*Knyvett*); Shan hills (*Manders*).

! Baracus hampsoni, n. sp. (Plate XVIII. fig. 21, ♂.)

♂. Upperside brown; fore wing with four yellow spots, one in each of cells 2, 3, 6, and 7. Underside: fore wing dark brown from the dorsum as far as the upper edge of the cell, the outline of the dark space concave from the apex of vein 3 to a point near the middle of cell 6, the remainder of the wing yellow, the yellow spots in cells 6 and 7 as on the upperside: hind wing at first sight appearing yellow, with many brown streaks, but really brown closely sprinkled with yellow scales, and having the veins, a spot occupying the basal half of cells 4–5 and sometimes continued to the base of the wing, and a subterminal series of spots consisting of a spot in each of cells 2–7, of which those in cells 2, 3, and 6 are about twice as long as the others, yellow; a pale anteciliary line on both wings. Fringes grey, chequered with darker, the short scales dark brown.

♀. Similar to the male, but slightly larger.

Expanse 24–26 mm.

Hab. N. Canara (*Aitken*).

Described from five males and two females in coll. Elwes.

Astictopterus.

Astictopterus, Felder, Wien. ent. Monatsb. iv. p. 401 (1860); Watson, P. Z. S. 1893, p. 114.
Type *jama*, Feld.

In structure of the antennæ, palpi, and veins this genus does not differ essentially from *Baracus*, although vein 2 of the fore wing arises near the middle of the lower edge of the cell, and the last joint of the palpi is comparatively shorter. The facies of

its members, however, is different, and the hind tibiæ are not fringed with long hairs as in *Baracus*. The species are dark brown above, with or without a few small white spots, which, when present, are placed near the base of cells 6 and 7 or 6, 7 and 8, and more rarely there is another near the basal third of cell 3.

The species known to us may be distinguished as follows:—

1 (2). Fore wing below umber-brown, the costal and apical regions but little paler: male without hyaline spots; female usually with hyaline spots in cells 6, 7, and 8. Hind wing below umber-brown, with very ill-defined antemedian and postmedian macular dark bands . . . . . *olivascens*, Moore.

2 (1). Fore wing below fuliginous brown, the costal and apical regions pale reddish brown, the latter with some grey scaling next the termen from vein 3 to the apex: both sexes usually with hyaline spots in cells 6, 7, and 8, and in the female there is frequently a short hyaline spot near the basal third of cell 3. Hind wing below pale reddish brown, with antemedian and postmedian darker bands, of which the latter sometimes bears some spots of whitish scales . . . . . *henrici*, Holland.

! ASTICTOPTERUS OLIVASCENS. (Plate XVIII. fig. 16, ♂.)

Astictopterus olivascens, Moore, P. Z. S. 1878, p. 692; Watson, Hesp. Ind. p. 146 (1891).

Hab. Khasia hills (*Hamilton*), Naga hills (*Doherty*); Shan hills (*Manders*); Sikkim (*Möller*); Buxar, Bhutan (*in coll. Elwes*); Perak (*Doherty*); W. Java (*Piepers*); Cherrapunji (*in coll. Swinhoe*).

! ASTICTOPTERUS HENRICI. (Plate XVIII. fig. 17, ♂.)

Cyclopides henrici, Holland, Trans. Amer. Ent. Soc. xiv. p. 124, pl. ii. fig. 5 (1887).
Astictopterus kada, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 328.
Astictopterus olivascens, Leech, Butt. China &c. p. 629, pl. xlii. fig. 1 (1894).

Hab. Khasia hills (*Hamilton*); Burmah (*Adamson*); E. Pegu (*Doherty*); Nilawa (*Manders*); W. China (*Leech*); Chia-ting-fu (*Pratt*).

Chinese specimens are darker on the underside than Indian ones. Leech's figure (*l. c.*) is not quite characteristic.

Dr. Holland, to whom we had sent a transcript of our statement of the diagnostic characters of *olivascens* and *henrici*, as given in the preceding table (using the name *kada* for the latter) writes as follows:—"I have complied with your request, and carefully examined my type of *Astictopterus*! (false *Cyclopides*) *henrici*. It agrees best and quite certainly with the description of *kada*, Swinhoe. I have not a particle of doubt that it is the latter."

ASTICTOPTERUS JAMA.

Astictopterus jama, Felder, Wien. ent. Mon. iv. p. 401 (1860); Distant, Rhop. Mal. p. 401 (1886).

Not having seen this species, we transcribe the original description:—"Alis utrinque saturate fuscis, cervino atomatis. ♂. Coll. Felder. *A. pygmæo*, Fabr., species hæc in

India continenti etiam occurrens, similis, sed alæ breviores et latiores palporumque articulus tertius minutus."

Hab. Malay Peninsula.

Felder's collection is now in the Museum of the Hon. Walter Rothschild at Tring, and Dr. Jordan, to whom we applied for an account of Felder's type of this species, writes that the specimen which stands as *Astictopterus jama* in Felder's collection is not that species, as it has a broad yellow band across the fore wing somewhat like *sindu*, and that there are a number of specimens from Malacca in the same drawer without names, of which one may be the type of *jama*. We do not know what insect was identified by Distant as *jama*, Feld., nor how Watson identified as *jama*, Feld., the insect from which his description (P. Z. S. 1893, p. 114) of the genus *Astictopterus* was taken.

Apostictopterus.

Apostictopterus, Leech, Butt. China &c. p. 630 (1894). Type *fuliginosus*, Leech.

Antennæ about half as long as costa, club gradual; apiculus robust. Palpi ascending; third joint porrect, cylindrical, at least as long as half the diameter of the eye. Wings comparatively long and narrow: tip of fore wing truncate, *i. e.* the termen is nearly vertical from vein 5 to the costa, and inwardly oblique from vein 5 to vein 1*a*, with an obtuse but distinct angle at the end of vein 5; vein 2 from the basal third of the lower edge of the cell; vein 5 a trifle nearer 4 than 6; vein 11 normal, *i. e.* not in any way approaching vein 12. Tibial epiphysis present, hind tibiæ with two pairs of spurs.

The foregoing characters are present in Mr. Leech's unique type of *Apostictopterus fuliginosus*, which he has been so good as to entrust to us for examination. The genus should stand next to *Astictopterus*.

Apostictopterus fuliginosus.

Apostictopterus fuliginosus, Leech, Butt. China &c. p. 631, pl. xxxviii. fig. 8, ♂ (1894).

Hab. Omei Shan, Western China (*fide Leech*).

Sancus.

Sancus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 395; Watson, P. Z. S. 1893, p. 87. Type *subfasciatus*, Moore=*pulligo*, Mab.

Body and wings above entirely dark brown. Palpi appressed, 2nd joint densely scaled, 3rd joint almost concealed. Fore wing with vein 12 shortly touching vein 11 near its base. Sex-mark of the male, when present, an oblong-oval patch of modified scales in the basal third of cell 1*a* on the fore wing below and touching the median and the base of vein 2; its presence is not always well indicated on the upper surface of the wing. The fore wing is rather narrow and feebly subtruncate at the apex, the

termen between veins 5 and 6 reaching a little beyond the actual tip; hind wing rounded, its greatest length not exceeding that of the dorsum of the fore wing. Abdomen comparatively long and slender. On the hind wing below the common pattern consists of the following spots of pale scales, namely:—one in cell 7 erect from the base of vein 7, one near the middle of the upper margin of the cell, one in the basal third of cell 6, and four in a straight line almost parallel with the termen, one each in cells 2, 3, 4, 5; some of these spots are sometimes suppressed, and in some specimens the whole are scarcely discernible.

Two species are mentioned by Watson (P. Z. S. 1893, p. 87), which may be distinguished as follows:—

Sex-mark present in the male. Hind wing below with pale spots or bands, or both . . . . . *pulligo*, Mab.
Sex-mark wanting in the male. Hind wing below unmarked . . . . . *fuscula*, Snell.

Watson says of *S. fuscula* that the male mark is present, but inconspicuous, and he separates the species from *S. pulligo* by having the underside of the hind wing entirely unmarked, and by the beautiful plum-like bloom of the upperside, though this last character is only apparent in fresh specimens.

! Sancus pulligo.

Tagiades pulligo, Mabille, Bull. Soc. Ent. Fr. 1876, p. xxvi; id. Ann. Soc. Ent. Fr. 1876, p. 272.
Astictopterus subfasciatus, Moore, P. Z. S. 1878, p. 842; Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 380, pl. xviii. figs. 1, 1 *a*, ♂; Watson, Hesp. Ind. p. 148 (1891).
Astictopterus ulunda, Staudinger, Iris, ii. p. 146 (1889).
Sancus subfasciatus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 396.
? *Antigonus kethra*, Plötz, Jahrb. Nass. Ver. 1884, p. 24.
? *Astictopterus kethra*, Plötz, Stett. ent. Zeit. xlvii. p. 110 (1886).
Sancus pulligo, Semper, Schmett. Philipp. p. 319, pl. xlix. fig. 1, ♂ (1892).

Hab. Nilghiri hills (*Hampson*); Akyab, Moulmein (*Adamson*); Perak, Pulo Laut, Bali (*Doherty*); Java (*Piepers*); Borneo, Philippines (*Semper*); Palawan (*Platen*).

Sancus fuscula.

Tagiades? *fuscula*, Snellen, Tijd. voor Ent. vol. xxi. p. 42, pl. ii. fig. 3 (1878); de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 397.

Hab. S.W. Celebes (*fide de Nicéville*).

Koruthaialos.

Koruthaialos, Watson, P. Z. S. 1893, p. 76, pl. ii. fig. 8. Type *hector*, Wats.

A genus of few species, well exemplified by the *Astictopterus xanites* of Butler. Apart from facies, it differs from *Suastus* and *Iambrix* in the fact that vein 11 of the fore wing touches or anastomoses with vein 12 for a portion of its length. Perhaps the

most remarkable feature of the genus is the frenulum-like tuft of bristly hairs found at the base of the costa of the hind wing in the male.

The following table deals only with the three species in coll. Elwes:—

Males.

1 (4). Fore wing with a red band, at least on the underside.
2 (3). Red band on fore wing below broader, its breadth near the middle about equal to one-third of the length of the costa . *xanites*, Butl.
3 (2). Red band on fore wing below narrower, its breadth near the middle about equal to one-fourth of the length of the costa. *hector*, Wats.
4 (1). Fore wing without any red band . . . . . *butleri*, W.-M. & de Nicév.

With regard to *K. xanites* and *K. hector*, it is difficult to lay down any satisfactory character for the separation of these two species, if species they are. In their typical state they offer no difficulty, *K. xanites* being the larger insect, expanding about 41 mm., with the red band on the fore wing above broad, and reaching from the middle of the costa to the tornus; whilst *K. hector* is smaller, expanding about 35 mm., with the red band on the fore wing above comparatively narrower and rarely reaching quite to the tornus, frequently abbreviated at each end, and sometimes entirely wanting. Pending the comparison of the male genitalia of typical specimens when opportunity offers, we find that the most constant character by which to separate the two forms lies in the relative breadth of the red band of the fore wing, as exhibited on the underside.

! KORUTHAIALOS XANITES.

Astictopterus xanites, Butler, Trans. Ent. Soc. Lond. 1870, p. 510; id. Trans. Linn. Zool. Soc. ser. 2, vol. i. p. 555, pl. lxix. fig. 7 (1877).
Koruthaialos xanites, Watson, P. Z. S. 1893, p. 77.

Hab. Borneo (*fide Butler*); Malacca (*fide Watson*); Kina Balu, Borneo (*Waterstradt*); Perak, Bali (*Doherty*).

! KORUTHAIALOS HECTOR.

Koruthaialos hector, Watson, P. Z. S. 1893, p. 77.
Astictopterus xanites, Distant, Rhop. Mal. p. 402, pl. xxxiv. fig. 28 (1886); Watson, Hesp. Ind. p. 145 (1891).
Astictopterus xanites, var. *palawites*, Staudinger, Iris, ii. p. 148 (1889).
Kerana gemmifer, Semper, Schmett. Phillipp. p. 318 (1892), *sec. spec. comm.*

Hab. Luzon (*fide Semper*); Palawan (*fide Staudinger*); Burmah (*Adamson, Doherty*); Tenasserim (*Bingham*); Perak, Pulo Laut, Bali, Arjuno, Java (*Doherty*); Java (*Piepers*); Bunguran, Natuna Is. (*Everett*); Palawan (*in coll. Rothschild*).

! KORUTHAIALOS BUTLERI.

Astictopterus butleri, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1883, p. 98, pl. x. fig. 3, ♂; iid. op. cit. 1886, p. 380.

Dark fuliginous brown with somewhat of a purple tinge, the latter most evident on hind wing below. Male with no trace of a pale band on either side of the fore wing; in the female[1] (*fide* de Nicéville) the fore wing has an obsolete oblique discal red band, which is sometimes quite absent from the upperside, but always distinctly traceable on the underside. This species, though distinct enough to admit of its definition, is evidently but little removed from the preceding; being, in fact, more remote from it in the matter of facies than it is in the form of the male genitalia.

Hab. Sikkim (*Möller*); Upper Assam (*Doherty*); Khasias (*Hamilton*).

KORUTHAIALOS VERONES.

Astictopterus verones, Hewitson, Ann. & Mag. Nat. Hist. (5) i. p. 341 (1878).
Koruthaialos verones, de Nicéville & Martin, Jour. As. Soc. Beng. 1895, p. 534.

"Both sides rufous brown. Underside of the anterior wing marked by a subapical rufous spot." (*Hewitson, l. c.*)

Hab. Sumatra (*fide Hewitson*).

KORUTHAIALOS KERALA.

Koruthaialos kerala, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1896, p. 20, pl. T. fig. 48, ♂.

"*Male.* Upperside, both wings shining fuscous. Fore wing with a broad oblique discal orange fascia exactly as in *Kerana armatus*, Druce, that is to say, the band is about twice as long as it is broad, and it does not quite reach the costa, the outer margin at the anal angle, or the inner margin; but it differs slightly in form from the band in that species, as its inner edge anteriorly is obliquely cut off instead of being continued straight to the margin. Hind wing unmarked. Underside: both wings paler than on the upperside, of a more sooty brown. Fore wing has the discal band rather broader than on the upperside, reaching the inner margin; it is paler, moreover, throughout, especially so posteriorly. Hind wing immaculate. Antennæ black, the apex of the club paler beneath. Palpi blunt, the third joint hidden beneath the second.—*Female* exactly like the male."

Expanse, ♂, 44–45 mm.; ♀, 44–54 mm.

Hab. Perak, Malay Peninsula; Battak Mountain, N.E. Sumatra (*fide de Nicéville*).

We have not seen this species.

KORUTHAIALOS KOPHENE.

Koruthaialos kophene, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1896, p. 21, pl. T. figs. 49 ♂, 50 ♀.

"*Female.* Upperside, both wings sooty-brown. Fore wing with a broad oblique discal orange fascia (not as broad as in *Celænorrhinus ladana*, Butler, *Kerana armatus*, Druce, and *Koruthaialos kerala*, de Nicéville) commencing near the costa, ending near the submedian nervure, its edges irregular, crossed by the dark brown veins,

[1] We have never seen the female of this species.

bearing a dark brown line which defines the discocellular nervules. Hind wing unmarked. Underside, both wings rather paler than above. Fore wing with the discal band broader and paler, especially posteriorly, than on the upperside, the discocellular dark line narrower and more prominent. Hind wing unmarked. Antennæ black, the apex of the club beneath paler. Palpi blunt, the third joint hidden beneath the second.—*Male* similar to the female but smaller, the orange fascia on both sides of the fore wing rather more obscure and narrower."

Expanse, ♂, 40; ♀, 45–52½ mm.

Hab. N.E. Sumatra, Central Java (*fide de Nicéville*).

We have not seen this species. It will be observed that both this species and the preceding are remarkable for the position of the third joint of the palpi; in all the Hesperiidæ known to us the third joint of the palpi proceeds from the distal end of the second joint and is not hidden beneath it.

Suada.

Suada, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 370. Type *swerga*, de Nicéville.

This genus is distinguished from *Suastus* by having vein 11 of the fore wing touching or approaching vein 12.

The species known to us may be distinguished as follows:—

1 (2). Hind wing above not marked with white . . . . . *swerga*, de Nicév.
2 (1). Subtornal region of hind wing above in greater or less part pure white.
3 (4). Fore wing fuliginous brown, without hyaline spots or, at most, with one or more of the subapical series. Hind wing below pure white, unspotted, narrowly brown along the costa . . . . . *cataleucos*, Stgr.
4 (3). Fore wing above fuliginous brown, with three small hyaline white spots on the disc, one each, subequal in size, in the cell and cell 2 next the base of vein 3, and one, smaller and triangular, in the base of cell 3.
5 (6). Hind wing below white as far as vein 7, thence to the costa brown; termen suffused with brown in the apex of cells 1 and 2 . . . . . *albinus*, Semper.
6 (5). Hind wing below white as far as vein 7, thence to the costa brown, the white portion with some black spots, namely, one in the apex of the cell, one near the apical third and one at the apex of cell 1 *b*, both large (the former subquadrate), and followed by some smaller ones in cells 2, 3, and 4, 5, the whole indicating a postmedian and terminal macular band respectively . . . . . *scopas*, Stgr.

! Suada swerga.

Hesperia swerga, de Nicéville, Jour. As. Soc. Beng. 1883, p. 89, pl. x. fig. 12, ♂.
Suastus mölleri, Moore, Jour. As. Soc. Beng. 1884, p. 49.
Suada swerga, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 372.

Hab. Sikkim (*Möller*); Arjuno, Java (*Doherty*).

! Suada cataleucos.

Heteropterus? cataleucos, Staudinger, Iris, ii. p. 162, pl. ii. fig. 13, ♂ (1889).

Hab. Pulo Laut, Borneo (*Doherty*); Palawan (*Platen*).

Suada albinus.

Suastus albinus, Semper, Schmett. Philipp. p. 299, pl. xlix. fig. 8, ♀ (*nec* ♂) (1892).

Hab. S.W. Mindanao (*Semper*); Davao, Mindoro (*Staudinger*).

Herr Semper is mistaken as to the sex of his single example of this species; it is undoubtedly a female.

Suada scopas.

Heteropterus? (*Steropes*) *scopas*, Staudinger, Iris, ii. p. 161, pl. ii. fig. 12, ♂ (1889).

Hab. Palawan (*Platen*).

Distinguished from *albinus* by the smaller amount of white on the hind wing above and the black spots on the white portion of the hind wing below.

Suastus.

Suastus, Moore, Lep. Cey. vol. i. p. 168 (1881); Watson, P. Z. S. 1893, p. 75. Type *gremius*, Fab.

No hyaline spot in cell 4 of fore wing. Third joint of palpi acicular, erect, one-third to one-half as long as the diameter of the eye. Fore wing: vein 11 not touching 12; vein 2 nearer the base of the wing than the end of the cell.

We are acquainted with five species of this genus, distinguished as follows:—

1 (8). Hind wing above not marked with white.
2 (7). Hind wing below not sprinkled with purple scales.
3 (6). Pale spot in cell 1*a* of fore wing below not reaching the termen.
4 (5). Dark spots on hind wing below black. Expanse about 38 mm. . . . *gremius*, Fab.
5 (4). Dark spots on hind wing below but little darker than the ground-colour. Expanse about 30 mm. . . . . *sala*, Hew.
6 (3). Pale spot in cell 1 *a* of fore wing below pure white, and, with the exception of a small piece in the upper outer angle of that cell, occupying the entire space between the dorsum and vein 2 from the termen to the middle of the wing. Hind wing below brown, closely sprinkled with whitish-grey scales and bearing a few brown spots, of which two in cell 1 *b*, one near the base of vein 2, and the other near the apical third of the cell, one each in cells 2 and 3, and one in the apex of the cell are the most evident; an anteciliary brown line; fringe white . . . . . *migreus*, Semper.
7 (2). Hind wing below rather thickly sprinkled with purple scales on the basal two-thirds . . . . . *bipunctus*, Swinh.

8 (1). Subtornal region of hind wing above in greater or less part pure white. Hind wing below white; costa brown as far as vein 7; a large subquadrate black spot beyond the middle of cell 1 *b*, a small one next the transverse vein, and one or two others . . . . . *tripura*, de Nicév.

The *Carystus telesinus* of Mabille, which Semper includes in this genus, we place tentatively in *Plastingia*; it has not the facies of *Suastus* nor the long acicular third joint of the palpi characteristic of that genus.

! Suastus gremius.

Hesperia gremius, Fabricius, Ent. Syst. Suppl. p. 433 (1798).
Hesperia divodasa, Moore, P. Z. S. 1865, p. 791.
Hesperia subgrisea, Moore, P. Z. S. 1878, p. 689.
Suastus gremius, Moore, Lep. Cey. vol. i. p. 168 (1881).
Suastus subgrisea, Moore, l. c.

Hab. N.W. Himalayas (*Young*); Bangalore, Ganjam (*Minchin*); Sikkim (*Möller*); Khasia (*Elwes*); Bombay (*Swinhoe*); Burmah (*Adamson*).

Suastus chilon.

Suastus chilon, Doherty, Jour. As. Soc. Beng. 1891, p. 198.

"Above, male all dark brown, no hyaline markings nor patches of lighter brown scales. Below, fore wing with a minute white dot discally in the lower median space, the subapical hyaline spots represented by two slight dark streaks, the lower (in one specimen) containing a lighter dot. Hind wing nearly white (not grey as in *S. gremius*), the borders dark; a conspicuous black cell-spot, and a row of black discal spots, six in one specimen, four in the other. The absence of hyaline spots distinguishes it from all others. Two males, Sumba coast." (*Doherty, l. c.*)

We have not seen this species and do not know whether the types still exist.

! Suastus sala. (Plate XVIII. fig. 15, ♂.)

Hesperia sala, Hewitson, Trans. Ent. Soc. Lond. 1866, p. 500; Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 259.
Suastus aditus, Moore, Jour. As. Soc. Beng. 1884, p. 49.

Hab. Sikkim (*Möller*); E. Pegu, Andamans (*Doherty*); Java (*Piepers*).

! Suastus migreus.

Suastus migreus, Semper, Schmett. Philipp. p. 300, pl. xlix. fig. 9, ♂ (*nec* ♀) (1892).

Hab. Luzon, Mindanao (*Semper*); Mindoro (*coll. Staudinger*).

Herr Semper has been good enough to lend us the specimen figured in his work, which is certainly a male. The species is well characterized by the large white patch in the tornus of the fore wing below.

! Suastus bipunctus. (Plate XVIII. fig. 14, ♂.)

Suastus bipunctus, Swinhoe, Ann. & Mag. Nat. Hist. (6) v. p. 364 (1890).
Suastus aditus, Hampson, Jour. As. Soc. Beng. 1888, p. 365.

Hab. Nilgiri hills (*Hampson*).

! Suastus tripura.

Tagiades tripura, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 392, pl. G. fig. 39, ♀.
Carystus albescens, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 51 (1893).

Hab. Perak, Pulo Laut, Bali (*Doherty*); Java (*Fruhstorfer*).

Suastus minuta.

Tagiades minuta, Moore, Ann. & Mag. Nat. Hist. (4) xx. p. 343 (1877); id. Lep. Cey. i. p. 176, pl. lxviii. figs. 4, 4*a* (1881); Watson, Hesp. Ind. p. 96 (1891).

Resembles *S. tripura* in general appearance, but has the hind wing above entirely brown. Hind wing below white, brown along the costa; an ill-defined brown spot near the apical third of cell 1 *b*, an indication of a smaller one in cell 2, and another next the transverse vein.

Hab. Ceylon.

Suastus robsonii.

Suastus robsonii, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 372, pl. Q. fig. 50, ♂.

Nearest to *S. minuta*. Hind wing below "(as seen under a strong magnifying-glass) overlaid throughout with dull ochreous scales; an elongated minute black spot at the end of the cell." Described from a single example taken at Masuri, W. Himalayas, 12th July, 1892.

Suastus phiditia.

Hesperia phiditia, Hewitson, Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 501 (1866).
Suastus phiditia, de Nicéville & Martin, Jour. As. Soc. Beng. 1895, p. 535.

This species, which we have not seen, has one large vitreous spot on the hind wing above, and the hind wing below "ochreous, crossed at the middle by a band of four brown spots" (*rufo-ochraceis, fasciâ fuscâ*).

Hab. Sumatra (*fide Hewitson*).

Iambrix.

Iambrix, Watson, P. Z. S. 1893, p. 76, pl. iii. fig. 25. Type *salsala*, Moore.

A genus established by Watson for the *Nisoniades salsala* of Moore and its immediate allies. It differs from *Suastus* in facies and in the fact that vein 3 of the fore wing arises immediately before the end of the cell. The males of the three

species placed in this genus by its author, together with one other, may be distinguished by the characters given below. In *salsala* and *stellifer* the white spots on the hind wing below are very inconstant in size and number, and so, in a lesser degree, are the white spots on the fore wing of the females of those species.

Males.

Fore wing above not banded with yellow-red. Hind wing below with 2–4 small snow-white spots (sometimes absent). No patch of androconia on the hind wing above.	
Fore wing above with a sordid yellow macular band running obliquely outwards from the middle of the dorsum (sometimes indistinct, but always indicated by more or less distinct patches of golden-yellow scales).	*salsala*, Moore.
Fore wing above without any trace of a pale discal macular oblique band . .	*stellifer*, Butl.
Fore wing above with a broad yellow-red postmedian band, which is sometimes more or less abbreviated at each end. A large patch of androconia at the base of the hind wing above near the costa.	
Fore wing below: red band narrower, lying at a right angle to the dorsum and reaching about halfway across cell 3, its inner edge nearly straight, not indented at the end of the cell	*sindu*, Feld.
Fore wing below: red band broader, reaching to about the apical sixth of cell 3, its inner edge deeply indented at the end of the cell, its outer edge forming an almost regular curve from the apical fifth of the costa to the tornus	*latifascia*, n. sp.

! Iambrix salsala.

Nisoniades salsala, Moore, P. Z. S. 1865, p. 786.
Astictopterus salsala, Distant, Rhop. Mal. p. 401, pl. xxxiv. fig. 21 (1886).

In typical females of this species there is on the underside of the fore wing a round white spot at the end of the cell and a curved postmedian series of roundish white spots, placed one each in cells 2–8 inclusive, and decreasing in size towards the costa.

Hab. Sikkim (*Möller*); Assam, Naga hills, East Pegu, Perak (*Doherty*); Burmah (*Adamson*); Ceylon; Ganjam (*Minchin*); West Java (*Piepers*); Kina Balu (*Waterstradt*).

! Iambrix stellifer.

Astictopteryx stellifer, Butler, Trans. Linn. Soc. Lond., Zool. ser. 2, vol. i. p. 555 (1877); Moore, Lep. Cey. vol. i. p. 163 (1881).

This is a good and distinct species, notwithstanding all that has been written to the contrary. In typical females there is on the underside of the fore wing a round white spot in the cell and three other roundish white spots placed as follows, namely: one near the basal third of cell 2, one near the basal third of cell 3, and one near

the middle of cell 5, thus forming an oblique series running outwardly towards the apex of the wing.

Hab. East Pegu, Pulo Laut, Sumatra (*Doherty*); Nias (*Modigliani*); Java (*Fruhstorfer*).

! Iambrix sindu.

Astictopterus sindu, Felder, Wien. ent. Mon. iv. p. 401 (1860); Distant, Rhop. Mal. p. 402, pl. xxxv. fig. 30 (1886).

Astictopterus obliquans, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 51 (1893).

Hab. Perak, Pulo Laut (*Doherty*); Labuan, Kina Balu, Borneo (*Waterstradt*); Padang, Sumatra (*Sachs*, *Martin*).

! Iambrix latifascia, n. sp. (Plate XXI. fig. 9, ♂.)

♂ ♀. Slightly larger than *I. sindu*, from which it is distinguished by the different shape and much greater breadth of the red band on the fore wing. These differences are detailed in the table above. The male genitalia are similar to those of *I. sindu*.

Expanse, ♂ 26, ♀ 29 mm.

Hab. Kinu Balu, Borneo (*Waterstradt*); Liwa, S.E. Sumatra (*Doherty*).

Described from specimens ex coll. Staudinger, one of which is now in my collection.

Ge.

Ge, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 373. Type *geta*, de Nicév.

A genus, for the present, containing one species only, allied to *Matapa*, from which it is best distinguished by the sex-marks of the male. The latter are as follows:—On the fore wing above, near the base of cell 2, an oval depression fringed on its inner edge by a series of erecto-patent hair-scales; the latter are blackish, becoming pale at the base, and when viewed from above appear to entirely cover the oval depression, the long axis of which reaches quite across the cell; on the hind wing above a fringe of long hair-scales along the basal half of vein 7, directed obliquely outward and downward, and covering wholly or in part a pale patch of modified scales.

! Ge geta.

Ge geta, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 374, pl. Q. fig. 51, ♂.

The female is undescribed.

Hab. Pulo Laut (*Doherty*); East Java (*Piepers*); Selesseh, Sumatra (*Martin*).

Taractrocera.

Taractrocera, Butler, Cat. Lep. Fabr. p. 279 (1869); Watson, P. Z. S. 1893, p. 94, pl. iii. fig. 20. Type *mævius*, Fab.

A genus of small species, associated on account of their general resemblance to the *Hesperia mævius* of Fabricius, as figured by Butler (Cat. Lep. Fabr. pl. iii. fig. 13).

They may be readily distinguished by the blunt club of the antennæ, which is excavated on the upperside.

We know nine species, which we distinguish as follows:—

1 (6). Pale markings of the upperside white or whitish.
2 (3). Hind wing below with the veins conspicuously pale . . . . . [1]*mævius*, Fab.
3 (2). Hind wing below with the veins not conspicuously pale.
4 (5). Hind wing below with a whitish stripe from the base to the termen in cell 1 *b* . . . . . *danna*, Moore.
5 (4). No whitish stripe in cell 1 *b* of hind wing below . . . . . *ardonia*, Hew.
6 (1). Pale markings of the upperside deep tawny- or golden-yellow.
7 (14). Hind wing below with a pale spot near the middle of cell 7.
8 (11). Fore wing below: cell brown, with a yellow spot near the apex.
9 (10). Size generally larger. Pale spots of upperside smaller, those of the hind wing above remote . . . . . *ceramas*, Hew.
10 (9). Size smaller. Pale spots of upperside larger, those of the hind wing above contiguous, forming an irregular macular extradiscal band . . . . . *nicevillei*, Wats.
11 (8). Fore wing below: cell brown, with at least the distal half yellow.
12 (13). Hind wing below: cell 7 black, with an oblong yellow spot in the middle . . . . . *ziclea*, Plötz.
13 (12). Hind wing below: basal third of cell 7 and a subquadrate spot beyond the middle of that cell yellow . . . . . *flavoides*, Leech.
14 (7). Hind wing below with no pale spot in cell 7.
15 (16). Yellow band on hind wing above not recurved towards the costa, ending at vein 6; fore wing below with the cell brown nearly to the middle, thence yellow . . . . . *archias*, Feld.
16 (15). Yellow band on hind wing above recurved towards the costa, ending at vein 7; fore wing below with the cell brown, with a yellow spot near the apex . . . . . *oberthüri*, n. sp.

! TARACTROCERA MÆVIUS.

Hesperia mævius, Fabricius, Ent. Syst. iii. p. 352 (1793).
Taractrocera mævius, Butler, Cat. Lep. Fabr. p. 279, pl. iii. fig. 13; Moore, Lep. Cey. vol. i. p. 172, pl. lxx. fig. 5 (1880–81); Watson, Hesp. Ind. p. 62.
Pamphila sagara, Moore, P. Z. S. 1865, p. 792.

Hab. N.W. Himalayas (*Young*, *Hocking*); Ganjam, Calcutta (*Minchin*); Ceylon (*Mackwood*); Burmah (*Watson*).

[1] Specimens from Ceylon have the hind wing below sordid green and the veins less conspicuously pale.

! Taractrocera danna.

Pyrgus danna, Moore, Cat. Lep. E. I. C. i. p. 249.
Pamphila danna, Moore, P. Z. S. 1865, p. 508, pl. xxx. fig. 8.
Taractrocera danna, Watson, Hesp. Ind. p. 63.

Hab. N.W. Himalaya, 5000–9000 feet (*Young*); Sikkim (*Elwes*).

! Taractrocera ardonia.

Ancyloxypha ardonia, Hewitson, Descr. Hesp. p. 45 (1868).

Hab. Kina Balu, Borneo (*Waterstradt*), Pulo Laut (*Doherty*).

! Taractrocera ceramas. (Plate XXI. fig. 24, ♂.)

Cyclopides ceramas, Hewitson, Descr. Hesp. p. 44 (1868).
Taractrocera ceramas, Watson, Hesp. Ind. p. 63.

Hab. N. Canara (*Aitken*); Travancore, Malabar; Nilgiris (*Minchin*).

! Taractrocera nicevillei. (Plate XXI. fig. 12, ♂.)

Taractrocera nicevillei, Watson, P. Z. S. 1893, p. 95.

The form of the male genitalia is similar in this species and the preceding, and the essential wing-pattern of the two is also similar, the difference in facies being caused by the greater development of the yellow spots in *T. nicevillei*. We have not, however, seen any intermediate specimens.

Hab. Bombay (*Swinhoe*).

! Taractrocera ziclea.

Thymelicus ziclea, Plötz, Stett. ent. Zeit. xlv. p. 289 (1884).
Pamphila mæsoides (*luzonensis*, Mab.), Staudinger, Iris, ii. pp. 145, 165 (1889).
Ampittia ziclea, Semper, Schmett. Philipp. p. 304.
Ampittia mæsoides, id. t. c. p. 358.
Pamphila luzonensis, Mabille, *sec. spec. comm.*

This species and the next are interesting as combining the facies of *Telicota dara*, Koll., with the generic characters of *Taractrocera*. After examining a male and female of *ziclea* and a male of *mæsoides* from Semper, we are satisfied that they represent but one species. There are some small differences of degree in wing-pattern, but having regard to the latitude of similar variation which obtains in insects having a similar facies (e. g. *Telicota dara*, Koll.) these differences cannot be taken as satisfactorily characterizing a species.

Hab. Luzon, Mindoro, Samar, Bohol, Cebu, Mindanao (*Semper*).

! Taractrocera flavoides.

Taractrocera flavoides, Leech, Butt. China, &c. p. 590, pl. xl. fig. 10 ♀, 11 ♂ (1893–94).

Hab. Omei-shan, Central China (*Pratt*); Moupin (*ex coll. Oberthür*).

! Taractrocera archias.

Pamphila archias, Felder, Sitzb. Ak. Wiss. Math. Nat. Cl. xl. p. 462, *sep.* p. 15 (1860).
Thymelicus nigrolimbatus, Snellen, Tijd. Ent. xix. p. 165, pl. vii. fig. 5 (1876).
Telicota nigrolimbata, Distant, Rhop. Mal. p. 384, pl. xxxv. fig. 16 (1886).

According to a specimen received from M. Mabille, this is the same as *Pamphila dschalia*, Plötz.

In the Felder collection, under the name "*Pamphila archias*," are four specimens; two of these are without locality-labels and may be disregarded, but the remaining two which are labelled in contemporary handwriting "*Amboina*, Dolesch," are without doubt the same as *Thymelicus nigrolimbatus*, Snellen.

Hab. Java (*Piepers*); Sambawa, Bali, Arjuno, Java (*Doherty*).

! Taractrocera oberthüri, n. sp.

♀. Upperside similar to that of *T. ziclea*, but having the yellow markings less extensive. Hind wing below sordid yellow, by reason of a dense clothing of sulphureous scales on a dark brown ground; a large oblong pale spot occupying about the middle third of cells 4–5, a roundish one in the cell near the base of vein 7, another near the basal third of cell 2, and a feeble one in the base of cell 6; cell 1 *b* pale.

Hab. Trichinopoly, S. India (*Castets*).

Described from one female lent to us by M. Charles Oberthür.

Ochus.

Ochus, de Nicéville, Jour. As. Soc. Beng. 1894, p. 51. Type *subvittatus*, Moore.

This is a genus established by Mr. de Nicéville for the *Cyclopides subvittatus* of Moore. It is mainly distinguished from *Baracus* (e. g. *B. septentrionum* and *B. subditus*) by having the base of cell 6 in the fore wing nearly as long as that of cell 5, and vein 11 not approaching vein 12.

Ochus subvittatus.

Cyclopides subvittatus, Moore, P. Z. S. 1878, p. 692; Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 392, pl. xvii. figs. 6, 6 *a* ♂, ×2; Watson, Hesp. Ind. p. 69 (1891).
Cyclopides subradiatus, Moore, l. c. p. 693.

Hab. Sikkim, Khasia (*Elwes*), Nagas (*Doherty*).

Ampittia.

Ampittia, Moore, Lep. Cey. i. p. 171 (1881); Watson, P. Z. S. 1893, p. 95. Type *maro*, Fab.

A group comprising a few small species, dark brown with yellow spots, associated on account of their general resemblance to the *Hesperia maro* of Fabricius. In the latter there is no evident apiculus to the club of the antennæ, although a small one is present in the other species. The males of those species possessing a sex-mark on the fore wing above have the "tuning-fork" arrangement of the subcostal veins in the hind wing. We distinguish the species known to us as follows:—

1 (4). Fore wing above with a sex-mark in the male.
2 (3). Exp. 25 mm. Male: fore wing below—cell yellow except at the base. *maro*, Fab.
3 (2). Exp. 30–32 mm. Male: fore wing below—cell yellow, with a black streak in the middle . . . . . *virgata*, Leech.
4 (1). No sex-mark on fore wing above in the male.
5 (6). Fore wing more pointed; termen straight, oblique. Dark markings on hind wing below consisting of small, scattered, black spots . *maga*, Leech.
6 (5). Fore wing less pointed, termen evenly rounded.
7 (8). Hind wing below yellow, with irregular pale brown markings forming three more or less distinct transverse series; a large, oblong, pale spot occupying the basal half of cells 4–5 . . . . . *trimacula*, Leech.
8 (7). Hind wing below yellow-brown by reason of a close sprinkling of yellow scales on a brown ground, with three yellow spots near the base and an irregular subterminal and postmedian series of yellow spots, the largest member of the latter being a spot near the middle of cells 4–5 and occupying the entire width of those cells . *delai-lama*, Mab.

! AMPITTIA MARO.

Hesperia maro, Fabricius, Ent. Syst., Suppl. p. 432 (1798), ♂.
Cyclopides camertes, Hewitson, Descr. Hesp. p. 43 (1868), ♂.
Ampittia maro, Moore, Lep. Cey. i. p. 172, pl. lxxi. figs. 1, 1 *a* (1880–81); Watson, Hesp. Ind. p. 61 (1891).
Telicota maro, Distant, Rhop. Mal. p. 383, pl. xxxv. fig. 14 ♂, 15 ♀ (1886).

Hab. N. Canara (*Aitken*); Ceylon (*Mackwood*); Nilgiris (*Roberts*); Calcutta (*de Nicéville*); Burmah, Tenasserim (*Watson*); Shanghai (*Pryer*); Bali (*Doherty*).

AMPITTIA MAROIDES.

Ampittia maroides, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1896, p. 190, pl. T. fig. 51, ♂.

Differs from *A. maro* "on both sides of the fore wing in lacking the chrome-yellow spot in the middle of the submedian interspace."

Expanse 25 mm.

Hab. Daunat Range, Tenasserim (*fide de Nicéville*).

We have not seen this species.

! AMPITTIA VIRGATA.

Pamphila virgata, Leech, Entomologist, xxiii. p. 47 (1890).
Padraona virgata, Leech, Butt. China, &c. p. 598, pl. xl. fig. 15, ♂ (1886).

Hab. Changyang, Central China (*Pratt*).

! AMPITTIA MAGA.

Pamphila maga, Leech, Entomologist, xxiii. p. 48 (1890).
Padraona maga, Leech, Butt. China, &c. p. 599, pl. xl. fig 18, ♂ (1894).

Hab. Ichang, Ningpo (*Leech*).

Ampittia trimacula.

Taractrocera trimacula, Leech, Eutomologist, xxiv. Suppl. p. 60 (1891).
Padraona trimacula, Leech, Butt. China, &c. p. 599, pl. xl. fig. 17, ♂ (1894).

Hab. Wa-su-kow, West China (*fide Leech*).

! Ampittia delai-lama.

Cyclopides delai-lama, Mabille, Ann. Soc. Ent. Fr. 1876, p. lvi.
Taractrocera lyde, Leech, Entomologist, xxiv. Suppl. p. 60 (1891).
Aeromachus delai-lama, Leech, Butt. China, &c. p. 620, pl. xl. fig. 16, ♂ (1894).

Hab. West China, E. Tibet (*Pratt, Kricheldorf*).

Aeromachus.

Aeromachus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 214. Type *stigmata*, Moore.

This is a group of small dull-coloured species associated together on account of their resemblance to the *Thanaos stigmata* of Moore. The distinctive wing-pattern is generally well marked, and consists of a postmedian and subterminal curved series of small pale spots running almost parallel to the termen of both fore and hind wings: it is best displayed on the underside, and the postmedian series on the fore wing is usually the most sharply defined. In *kali*, de Nicév., the most aberrant species known to us, the essential pattern is traceable, although the pale spots are purple instead of whitish, and the sex-mark of the male is of the same kind as that found in *inachus*.

We separate the species known to us as follows:—

1 (22). Hind wing below without purple markings.
2 (9). Sex-mark on the fore wing above in the male a seam passing obliquely outwards from the middle of vein I *a* to the base of vein 3.
3 (8). Fore wing below with two rows of pale spots—one postmedian, the other subterminal.
4 (7). Hind wing below: space between the postmedian and subterminal pale macular bands darkened and divided into a series of spots by the pale veins.
5 (6). Hind wing below with the subterminal row of dark spots greenish brown; markings in cell 7 scarcely developed . . . . . *stigmata*, Moore.
6 (5). Hind wing below with the subterminal row of dark spots velvety greenish-black; markings in cell 7 strongly developed. Fore wing longer in proportion to its width, its termen more distiuctly curved . . . . . *chinensis*, n. sp.
7 (4). Hind wing below uniform pale greenish grey, the veins not evidently paler than the disc, the space between the postmedian

and subterminal pale macular bands not darker than the remainder . . . . . *piceus*, Leech.

8 (3). Fore wing below with only one row of pale spots—the postmedian one—and that but feebly developed. Hind wing below grey-brown, closely sprinkled with yellow scales, with a feeble irregular postmedian band of pale spots . . . . . *musca*, Mab.

9 (2). Sex-mark on the fore wing above in the male a small longitudinal fold of pale scales on vein 1 *a* a little beyond the middle, or none.

10 (11). Hind wing below with the veins pale. Tegumen (viewed from above) slightly angularly widened on each side just below its rounded apex; lower lobe of clasp broadly rounded, its margin serrate and continuous with the outline of the upper lobe . . *inachus*, Mén.

11 (10). Hind wing below with the veins concolorous.

12 (19). Fore wing broader and more triangular, the termen straighter and longer in proportion to the dorsum.

13 (16). Fore wing below: postmedian and subterminal pale macular bands both well developed, usually complete from the dorsum to the costa. Tegumen (seen from above) with a small notch at each distal angle, its apex truncate or but slightly rounded between the notches.

14 (15). Hind wing below grey-brown; the postmedian series of pale spots not stronger and more evident than the subterminal series . . *discreta*, Plötz.

15 (14). Hind wing below greenish ochreous; the postmedian series of pale spots stronger and more evident than the subterminal series . *jhora*, de Nicév.

16 (13). Fore wing below: pale macular bands imperfect or absent, not in any case reaching the dorsum.

17 (18). Fore wing below with a spot of pale scales in the cell near its upper distal angle. Tegumen (seen from above) with a small rounded projection on each side near the apex, beyond which it is produced in a bluntly-rounded triangle . . . . . *dubius*, n. sp.

18 (17). No such pale spot on the fore wing below. Tegumen as in *discreta* and *jhora* . . . . . *javanicus*, n. sp.

19 (12). Fore wing narrower and more oblong; termen more strongly curved, almost evenly curved from the dorsum to the costa.

20 (21). Fore wing below with the pale postmedian macular band continuous from cell 2 to cell 7 or 8, and running almost parallel with the termen; no pale spot in the cell near its upper distal angle. Tegumen parallel-sided in its apical half, evenly rounded at the apex; lower lobe of clasp not produced, broadly rounded, serrate and continuous with the outline of the upper lobe . . *indistincta*, Moore.

21 (20). Fore wing below with the pale spots in two outwardly oblique series—one series in cells 5, 6, and 7 or 8, or 6, 7, and 8, the other series in cells 2 and 3; no pale spot in cell 4; a pale spot in the cell near its upper distal angle. Tegumen a little constricted on each side just below the apex, which is bluntly

triangular; lower lobe of clasp acuminate, produced much above the level of the upper edge of the clasp . . . . . *nanus*, Leech.

22 (1). Hind wing below with pale purple spots.

23 (24). Upperside fuliginous brown. Sex-mark on the fore wing of the male a small longitudinal fold of pale scales on vein 1 *a* about the middle. Purple markings on the disc of hind wing below forming a large irregular macular patch having its outer edge parallel with the termen . . . . . *kali*, de Nicév.

24 (23). Upperside pale brown. Sex-mark on fore wing of the male a seam passing obliquely outwards from the middle of vein 1 *a* to the base of vein 3. Purple markings on disc of hind wing below forming a continuous curved macular band from the costa as far as vein 1 *b* . . . . . *catocyanea*, Mab.

! AEROMACHUS STIGMATA. (Plate XIX. fig. 3, ♂.)

Thanaos stigmata, Moore, P. Z. S. 1878, p. 694.
Aeromachus stigmata, Watson, Hesp. Ind. p. 68 (1891).

Specimens from the N.W. Himalayas and some from Sikkim show a band of whitish spots across the fore wing and a discal spot, which are faint or absent on the upperside of Khasia and Naga hill specimens; the undersides also vary to some extent, but the genitalia seem to be identical in both forms.

Hab. N.W. Himalayas (*Young*); Sikkim (*Möller*); Khasias (*Elwes*); Naga hills (*Doherty*).

! AEROMACHUS CHINENSIS, n. sp.

Aeromachus inachus, Leech, Butt. China, &c. p. 619, pl. xl. fig. 19, ♂ (1893–94), in part. (*nec* Ménétriés).

This insect, which in some parts of Western China appears to represent *A. stigmata*, may be readily distinguished from that species by the characters given in the table above. The genitalia do not differ materially. The sex-mark in the two male specimens which we have seems less conspicuous, but their condition is not perfect

Hab. Wa-shan, Ta-tsien-lu, West China (*Pratt*).

! AEROMACHUS PICEUS.

Aeromachus piceus, Leech, Butt. China, &c. p. 618, pl. xli. fig. 16, ♂ (1893–94).

Hab. Moupin, E. Tibet (*fide Leech*).

! AEROMACHUS MUSCA.

Pamphila? musca, Mabille, Bull. Soc. Ent. Fr. 1876, p. xxvi.
Aeromachus musca, Semper, Schmett. Philipp. p. 305 (1892).

A very distinct little species, of the size of *nanus*, Leech, or *indistincta*, Moore.

Hab. Luzon, Siargao (*Semper*).

! Aeromachus inachus. (Plate XIX. fig. 7; Plate XXIII. figs. 36, 36 *a*.)

Pyrgus inachus, Ménétriés, Bull. Acad. Petr. xvii. p. 217 (1859); Schrenk's Reisen, p. 46, pl. iv. fig. 2 (1859).

Closely allied to *stigmata*, but separable by its somewhat paler colour and the different form of the sex-mark.

It has the wing-shape of *chinensis*.

We have not been able to identify this with Ménétriés's type except by the locality; but Amur specimens agree well with those from Japan. Mr. Leech has included under this name what we call *chinensis*, and we have specimens from his collection which were mixed with others from Western China but which may be from Japan.

Hab. Yokohama (*Manley*); Oiwake, Japan (*Pryer*); Amurland, West China (*coll. Leech*).

! Aeromachus discreta. (Plate XIX. fig. 6, ♂.)

? *Apaustus discreta*, Plötz, Berl. ent. Zeit. 1885, p. 232.

Hab. Khasia, 5000 feet (*Elwes*); Bernardmyo, Burmah (*Doherty*); Battak Mountains, Sumatra (*Martin*). Cf. *javanicus*, post.

! Aeromachus jhora. (Plate XXIII. figs. 37, 37 *a*.)

Thanaos jhora, de Nicéville, Jour. As. Soc. Beng. 1885, p. 122, pl. ii. fig. 12, ♂.

Hab. Sikkim (*Möller*).

! Aeromachus dubius, n. sp. (Plate XIX. fig. 10, ♂; Plate XXIII. fig. 39 *a*.)

♂. Upperside dark olive-brown, the postmedian series of spots on the fore wing very indistinct or wanting; sex-mark on the fore wing a small inconspicuous fold of raised scales in cell 1 *a* next vein 1 *a* near the middle. Underside: fore wing umber-brown, the apical and costal regions similar to the hind wing; a small pale spot near the upper distal angle of the cell; the postmedian series of pale spots represented by about six spots, which become gradually fainter in their course from cells 8–3; a pale anteciliary line: hind wing ochreous brown by reason of a close sprinkling of yellow scales on the umber-brown ground; the postmedian and subterminal series of pale spots very indistinct or wanting; a pale anteciliary line. Fringes greyish white, the short scales grey-brown. Antennæ above blackish, minutely spotted with yellowish; beneath greyish yellow, the shaft spotted with black. Second joint of palpi clothed with yellow and black hairs intermixed. Body above concolorous with the wings, beneath with greyish-yellow pubescence. Legs with greyish-yellow scaling.

Tegumen (seen from above) with a small rounded projection near the apex on each side, beyond which it is produced in a bluntly rounded triangle.

♀. Differs from the male in wanting the sex-mark and in having the pale spots proper to the underside more strongly developed, and consequently the postmedian series appears faintly on the costal portion of the upperside of the fore wing.

Expanse 21–21½ mm.

Hab. Palnai hills (*Castets*); Peermaad, Travancore.

Described from four males and one female. Of the species known to us this comes nearest to *A. jhora*, de Nicév., from which, however, it differs in the form of the tegumen as well as in the spotting of the wings.

! Aeromachus javanicus, n. sp. (Plate XIX. fig. 24, ♂.)

♂. Upperside pale umber-brown without markings, a few greyish-yellow scales near the base of the fore wing towards the costa; on the hind wing a line of long grey hairs along the basal two-thirds of vein 1 *b*; sex-mark on the fore wing a small inconspicuous fold of raised scales in cell 1 *a* next vein 1 *a* near the middle. Underside: fore wing pale umber-brown; the apical region similar to the hind wing, and having the usual postmedian series of pale spots indicated by very indistinct pale spots in cells 5–7 or 5–8; a pale anteciliary line: hind wing grey-brown, with a very faint greenish tinge by reason of the close sprinkling of yellowish-grey scales on the pale brown ground; a pale anteciliary line; the usual postmedian and subterminal series of pale spots are only indicated by a few very indistinct pale spots. Fringes pale grey, the shorter scales grey-brown. Antennæ above black, minutely spotted with yellowish; beneath greyish yellow, the shaft spotted with black. Second joint of palpi clothed with whitish-grey and black hairs intermixed. Body above concolorous with the wings, beneath with yellowish-grey pubescence. Legs with yellowish-grey scaling.

Tegumen as in *A. discreta* and *A. jhora*.

Expanse 21 mm.

Hab. West Java.

Described from a single male kindly sent to us by Herr P. C. T. Snellen with the name *Apaustus discreta*, Plötz. In general appearance it comes nearest to the insect from the Khasia hills and Burmah, which we identify as *discreta*, Plötz, originally described from India; but the latter species, in all the specimens which we have seen, has the pale pattern on the underside well marked and constant.

! Aeromachus indistincta. (Plate XIX. fig. 11, ♂; Plate XXIII. fig. 39.)

Thanaos indistincta, Moore, P. Z. S. 1878, p. 694.
Aeromachus indistincta, Watson, Hesp. Ind. p. 66 (1891).

Hab. Nilgiri hills (*Hampson*); Tavoy (*Tucker*); Tounghoo, Burmah (*Adamson*); Bernardmyo (*Doherty*); ? Khasias.

! Aeromachus nanus. (Plate XXIII. figs. 38, 38 *a*.)

Aeromachus nanus, Leech, Butt. China, &c. p. 620, pl. xl. fig. 21, ♂ (1893–94).

Hab. Shanghai (*Pryer*); Ichang (*Pratt*).

! Aeromachus kali.

Thanaos kali, de Nicéville, Jour. As. Soc. Beng. 1885, p. 123, pl. ii. fig. 3, ♂.

The largest of the genus and a very distinct species.

Hab. Sikkim (*Möller*); Naga hills, Bernardmyo (*Doherty*).

Aeromachus catocyanea.

Pamphila catocyanea, Mabille, Ann. Soc. Ent. Fr. 1876, p. lv.
Aeromachus catocyaneus, Leech, Butt. China, &c. p. 618 (1894).

We have relied on the drawing of Mabille's type of this species referred to by Leech in separating this species, which we have not seen, but which seems nearest to *A. kali*.

Hab. "Thibet" (*David*). Type in Mus. Paris.

Sebastonyma.

Sebastonyma, Watson, P. Z. S. 1893, p. 81. Type *dolopia*, Hew.

A monotypic genus closely allied to *Halpe*. Vein 5 of the fore wing is straight and arises very little nearer to vein 4 than to vein 6, and the sex-marks in the male consist of an infra-alar tuft on the fore wing and a large suboval patch of androconia near the base of the hind wing above, situate in the cell next its lower edge and occupying about one-half of its area. The sex-mark on the hind wing is not noticed in the original diagnosis of the genus.

Sebastonyma dolopia.

Hesperia dolopia, Hewitson, Descr. Hesp. p. 27 (1868); id. Ex. Butt. v. pl. lv. figs. 60, 61 (1873).
Halpe dolopia, Watson, Hesp. Ind. p. 74 (1891).

Hab. Sikkim (*Möller*); Nagas, E. Pegu (*Doherty*); Khasias (*Hamilton*).

Pedestes.

Pedestes, Watson, P. Z. S. 1893, p. 81. Type *masuriensis*, Moore.

Watson made *Isoteinon masuriensis*, Moore, the type of this genus, and he also included in it *I. pandita*, de Nicév.

The male genitalia in these two species are remarkable for a certain amount of asymmetry and the possession of separate *œdeagus-guards*, not part of the tegumen,

of which the right is larger than the left. The tegumen is symmetrical in both species, and the clasps are so in *pandita*; but in the clasps of *masuriensis* the asymmetry is extreme.

The species here included in the genus may be distinguished as follows:—

1 (4). Fore wing with hyaline spots in cells 6, 7, 8. Hind wing below not marked with about ten black spots.

2 (3). Upperside dark brown with a purple shade, pale spots on the fore wing pure white. Hind wing below grey-brown, generally with a minute pale spot in each of cells 2 and 3; fringe white . . *masuriensis*, Moore.

3 (2). Upperside brown, pale spots on the fore wing sordid yellowish white. Hind wing below yellow-brown; fringe brownish grey . *pandita*, de Nicév.

4 (1). Fore wing without hyaline spots in cells 6, 7, and 8, or with one in cell 6 only. Hind wing below marked with about ten black spots.

5 (6). Fore wing with no pale spot in cell 6. Fringes of hind wing below pale, with dark spots next the veins. Male with the long hairs near the base of the hind wing above normal, not forming a tuft. Apex of tegumen (viewed from above) elongate-triangular, with a short horn on each side of the base . . . . . *maculicornis*, n. sp.

6 (5). Fore wing with a pale spot in cell 6. Fringes of hind wing below pale with the basal half dark. Male with a distinct tuft of subequal long hairs near the base of hind wing above. Apex of tegumen (viewed from above) elongate-triangular, with an ear-like lobe on each side of the base . . . . . *fuscicornis*, n. sp.

Pedestes masuriensis. (Plate XXIV. figs. 40, *a*, *b*, *c*.)

Isoteinon masuriensis, Moore, P. Z. S. 1878, p. 693; Watson, Hesp. Ind. p. 79; Staudinger, Exot. Tagf. i. p. 301, ii. pl. c.

Hab. N.W. Himalaya (*Young*); Sikkim (*Möller*).

Pedestes pandita. (Plate XXIV. figs. 41, *a*, *b*.)

Isoteinon pandita, de Nicéville, Jour. As. Soc. Beng. 1885, p. 181, pl. ii. fig. 14, ♀; Watson, Hesp. Ind. p. 81.

Hab. Sikkim (*Möller*); Naga hills (*Doherty*).

Pedestes maculicornis, n. sp. (Plate XVIII. fig. 23, ♂; Plate XXIV. fig. 42.)

♂. Upperside dark umber-brown: fore wing with four yellowish-white hyaline spots—one large, occupying the prebasal fifth of cell 2, one occupying the prebasal fifth of cell 3, and two in the cell, one on the lower edge and next the base of cell 3 and one on the upper edge near the base of cell 9; a streak of golden-yellow scales along the costa from the base to near the middle and another along the upperside of vein 1 *a* from the base to beyond the middle. Underside: fore wing

with the discal area brown, apical area brownish grey; hyaline spots as on the upperside; a large oblong suffused pale spot in cell 1 *a*, and a small brown spot in each of cells 4–7: hind wing brownish grey, with nine roundish black spots placed as follows—one in the basal fourth of cell 7, one in the cell next the base of cell 6, one near the basal third of cell 1 *b*, one near the middle of cell 7, one in cell 6, one in cells 4–5, one each in cells 2 and 3, and one near the apical third of cell 1 *b*, the six last named forming a subterminal curved series; fringe pale, with dark spots next the veins.

Body above concolorous with the wings. Palpi clothed with yellowish-grey scales intermixed with black ones. Antennæ brown, spotted with white on the underside from the base to the club, which bears a white ring.

♀. Similar to the male.

Expanse 37–38 mm.

Described from three males and one female in coll. Elwes.

Hab. Pulo Laut (*Doherty*).

Pedestes fuscicornis, n. sp. (Plate XVIII. fig. 25, ♂; Plate XXIV. fig. 43.)

♂. Upperside dark umber-brown: fore wing with five yellowish-white hyaline spots—one, the largest, in cell 2 and reaching from the basal fifth to about the middle of that cell, one occupying the prebasal fourth of cell 3, one, punctiform, near the basal third of cell 6, and two in the cell, one on the lower edge and next the base of cell 3 and one on the upper edge near the base of cell 9; the wing-membrane on each side of vein 1 *a* from the base to the middle paler in colour and having a somewhat inflated appearance: hind wing with a tuft of subequal long brown hairs near the base and reaching nearly to the middle. Underside: fore wing brown, the hyaline spots as on the upperside; a large oblong suffused pale spot in cell 1 *a*, and traces of small dark spots one each in cells 4–8, most distinct in cells 4 and 5: hind wing brown, with a distinct purple shade and nine black spots placed as follows:—one in the basal fourth of cell 7, one in the cell next the base of cell 6, one near the basal third of cell 1 *b*, one near the middle of cell 7, one in cell 6, one in cells 4–5, one each in cells 2 and 3, and one near the apical third of cell 1 *b*, the six last named forming a submarginal curved series; fringe pale, the basal half (that is, the short scales) dark.

Body above concolorous with the wings. Clothing of palpi above dark brown, beneath of yellowish-grey and brown scales intermixed in nearly equal numbers. Antennæ brown, underside spotted with white near the base; club with a white ring.

Expanse 30–34 mm.

Described from three male specimens in coll. Elwes, in one of which the purple shade is absent from the underside of the hind wing.

Hab. Pulo Laut (*Doherty*).

Lophoides.

Lophoides, Watson, P. Z. S. 1893, p. 84. Type *iapis*, de Nicé.

Antennæ two-thirds as long as the costa; club moderate, gradual; apiculus gradual. Palpi suberect, third joint short, almost concealed. Fore wing pointed, dorsum subequal in length to the termen; vein 5 straight, practically intermediate between veins 4 and 6; vein 2 from the basal third of the lower edge of the cell (further from the base of the wing in the female); base of cell 3 subequal in length to that of cell 4; hyaline spot in cell 4 reduced to a point or wanting. Hind wing with the termen evenly rounded, cell about half as long as the wing; vein 3 arising immediately before the end of the cell, vein 2 just beyond the middle of the lower edge of the cell.

In the male the dorsum of the fore wing has in its middle third a scanty fringe of long hairs pointing obliquely downward and outward; on the underside of the fore wing the middle third of the dorsum bears a thick fringe of long hairs pointing obliquely upward and outward; on the upperside of the hind wing there is a patch of long recumbent hairs attached to the basal portion of vein 8; and the fringe of the hind wing next the tornus is much elongated.

The first described species belonging to this genus was *obscura*, Distant, a species for which that author made the genus *Isma*; but as his account of that genus is both imperfect and inaccurate (he ascribes to the type a pyriform antennal club, which it certainly does not possess), his name must sink in favour of *Lophoides*, Watson, of which *iapis*, de Nicév., is the type, and of which the diagnosis does include a statement of the differential characters of the type species.

1 (8). With at least one cell-spot on the fore wing, that next the lower edge of the cell.

2 (7). Fore wing with the pale spot in cell 2 small, higher than wide (at least in the male).

3 (6). Hind wing below without any purplish suffusion on the basal half.

4 (5). Hind wing with a sprinkling of yellowish-grey scales, sometimes by their absence in parts giving rise to the appearance of a very obscure dark spot next the transverse vein, and a postmedian series of four or five similar spots. Fore wing broader, termen subequal in length to the dorsum. Upper edge of lower lobe of clasp not serrate; œdeagus-guards toothed on the edges. . . . . *iapis*, de Nicév.

5 (4). Hind wing below with a feeble brown spot next the transverse vein and a postmedian series of four similar spots, one each in cells 2, 3, 4–5, and 6 respectively. These spots are of purplish-brown scales and not merely bare patches of the ground-colour of the wing. Fore wing longer and narrower, termen longer than the dorsum . . . . . *obscura*, Distant.

6 (3). Hind wing below with a feeble purple suffusion on its basal half. Upper edge of lower lobe of clasp serrate ; œdeagus-guards smooth on the edges . . . . . *purpurascens*, n. sp.

7 (2). Fore wing with the pale spot in cell 2 large, wider than high. Male genitalia as in *iapis* . . . . . *vulso*, Mab.

8 (1). No cell-spot on the fore wing. Hind wing below with two minute white points on the disc, one each in cells 2 and 3 . . . . . *binotatus*, n. sp.

! Lophoides iapis. (Plate XXIV. figs. 44, 44 *a*.)

Isoteinon iapis, de Nieéville, Jour. Bom. Nat. Hist. Soc. 1890, p. 213, pl. E. fig. 9, ♂; Watson, Hesp. Ind. p. 86.

Hab. Johore, Malay Peninsula ; Mergui Archipelago (*fide de Nicéville*) ; Pulo Laut, Borneo ; Perak (*Doherty*) ; Bangney (*coll. Staudinger*).

Lophoides obscura.

Isma obscura, Distant, Rhop. Mal. p. 386, pl. xxxv. fig. 19 (1886).

We are indebted to Messrs. Godman and Salvin for the opportunity to critically examine the type of this species, which is from Singapore (*Wallace*).

! Lophoides purpurascens, n. sp. (Plate XVIII. figs. 26 ♂, 27 ♀; Plate XXIV. figs. 45, 45 *a*.)

Distinguished from *L. iapis* by the purple suffusion of the basal half of the hind wing below.

Expanse 31 mm.

Hab. Pulo Laut, Borneo (*Doherty*).

Described from three males and one female in coll. Elwes.

! Lophoides vulso, Mab.

Pamphila vulso, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 55 (1893).

Hab. West Java (*Piepers*) ; Java (*Fruhstorfer*) ; Bali (*Doherty*) ; Selesseh, Sumatra (*Martin*).

Lophoides binotatus, n. sp. (Plate XVIII. fig. 28, ♀ .)

♀ . Upperside dark brown : fore wing with five hyaline white spots, one about one and a half times as high as wide in cell 2, one less than half the size of the former in cell 3, one very small in cell 4, and two small and punctiform, one each in cells 6 and 7, and a small white spot next the upper edge of vein 1 *a* near the middle ; hind wing with an indistinct pale point on the disc, coinciding with that in cell 3 on the underside. Underside brown : fore wing darker on the disc, with a suffused whitish spot near the middle of cell 1 *a*, and the hyaline spots as on the upperside ; hind wing with two

minute white points on the disc, one each in cells 2 and 3. Fringe of the fore wing grey-brown, a little paler next cell 1 *a*; of the hind wing dark grey, with the short scales dark brown and a feeble indication of chequering. Antennæ blackish, finely spotted with white on the underside; club white beneath, apiculus dark. Body above concolorous with the wings. Second joint of palpi clothed with yellowish and black hairs intermixed. Clothing of breast and legs brown. Abdomen beneath yellowish grey.

Expanse 30 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one example ex coll. Staudinger.

Hyarotis.

Hyarotis, Moore, Lep. Cey. i. p. 174 (1881). Type *adrastus*, Cr.

This is a monotypic genus established by Moore for *Hesperia adrastus*, Cr., an insect sufficiently distinguished by its facies. Vein 5 of the fore wing is straight throughout.

Hyarotis adrastus.

Hesperia adrastus, Cramer, Pap. Ex. vol. iv. pl. ccexix. figs. F, G (1780).

Plesioneura praba, Moore, P. Z. S. 1865, p. 790.

Hesperia phœnicis, Hewitson, Ex. Butt., Hesp. pl. iv. figs. 36, 37 (1869).

Hyarotis adrastus, Moore, Lep. Cey. vol. i. p. 174, pl. lxvii. figs. 5, 5 *a* (1881); Distant, Rhop. Mal. p. 397, pl. xxxiv. fig. 4 (1886); Watson, Hesp. Ind. p. 117.

Hab. Kangra (*Hocking*); Sikkim (*Möller*); E. Pegu (*Doherty*); Ceylon; Java (*Fruhstorfer*); Philippines (*Semper*); Palawan (*Platen*).

Isoteinon.

Isoteinon, Felder, Wien. ent. Monats. vi. p. 30 (1862); Watson, P. Z. S. 1893, p. 83. Type *lamprospilus*, Feld.

Watson restricts the name *Isoteinon* to the *lamprospilus* of Felder and diagnoses the genus by the direction of the third joint of the palpi, which is "erect, reaching well above the vertex of the head, slender, obtusely conical." We have not seen any specimens of *lamprospilus*, Feld., with palpi of this kind; for us, the third joint of the palpus is short, about equal in length to one-fourth of the diameter of the eye, erecto-patent, and not reaching to the level of the vertex; and this condition does not appear to be due to deflexion of the head in setting. The basal portion of vein 5 of the fore wing recedes from vein 6.

Isoteinon lamprospilus.

Isoteinon lamprospilus, Felder, Wien. ent. Mon. vi. p. 30 (1862); id. Reise Nov., Lep. iii. pl. lxxiv. fig. 20 (1867); Leech, Butt. China, &c. p. 582 (1893–94).

Pamphila vitrea, Murray, Ent. Mo. Mag. xi. p. 171 (1875).
Pamphila lamprospilus, Pryer, Rhop. Nihon. p. 33, pl. x. fig. (1889).

Hab. Japan (*Pryer, Leech*); Changyang, C. China (*Pratt*).

Idmon.

Idmon, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 375. Type "*unicolor*," de Nicév. (nec Dist.)

This is a genus made by Mr. de Nicéville for a species from Perak, of which the female, according to him, agrees very closely with Distant's figure of *Baoris unicolor*. The latter is an entirely brown insect with an expanse of about 30 mm., and, as we have satisfied ourselves by an examination of the type kindly lent to us by Dr. Staudinger, is a true *Parnara*, and a male, not a female as supposed by Mr. de Nicéville. In the genus *Idmon*, according to his description, "the middle and lower discocellulars of the fore wing are very upright, slightly inwardly oblique only, both slightly concave, the middle a very little longer than the lower, the second median nervule arises close to the lower end of the cell, and the first median arises a little nearer to the base of the wing than to the lower end of the cell." There is on the fore wing of the male a sex-mark, which is described by him first as "a sexual brand placed anterior to, but against the submedian nervure towards its base, this brand is narrow and raised," and afterwards as "a narrow raised brand of modified scales lying alongside a portion of the submedian nervure towards its base on the upperside of the fore wing."

The hind tibia has "a tuft of hairs attached to its proximal and two pairs of spines on its distal end." This latter character is not found in any species of Hesperiidæ known to us; and as Mr. de Nicéville says that the female of his *Idmon* differs from the male only in the wings being broader and lacking the sexual brand on the fore wing, it would appear that there are two pairs of spines on the distal end of the hind tibia in both sexes.

Mr. de Nicéville gives as the type of this genus an insect which he was unable to identify correctly without seeing, and his generic diagnosis relates to the species mentioned below, which we have never seen, and not to *Baoris unicolor*, Dist.

Idmon unicolor.

Idmon unicolor, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 377, pl. Q. fig. 53, ♂.

Hab. Perak (*fide de Nicéville*).

Arnetta.

Arnetta, Watson, P. Z. S. 1893, p. 81. Type *atkinsoni*, Moore.

Watson includes in this genus *Isoteinon atkinsoni*, Moore, and *I. vindhiana*, Moore; the former has vein 5 in the fore wing straight and very little nearer to vein 4 than to

vein 6, and in the latter the basal portion of vein 5 in the fore wing recedes from vein 6, so that vein 5 arises much nearer to vein 4 to vein 6. The palpi are porrect in both species.

The two species may be distinguished as follows:—

1 (2). Male with a tuft of hair near the middle of the dorsum of the fore wing below. Vein 1 *a* of fore wing deflexed to the dorsum near the middle. Hind wing below with small pale spots . . . *atkinsoni*, Moore.

2 (1). No such tuft in the male, vein 1 *a* of fore wing straight. Hind wing below divided into a pale basal and a dark apical area, the boundary between these being in a line from the apical third of vein 8 to the apical fourth of vein 1 *b* and somewhat angulated in or near cell 7 . . . . . *vindhiana*, Moore.

! ARNETTA ATKINSONI.

Isoteinon atkinsoni, Moore, P. Z. S. 1878, p. 693, pl. xlv. fig. 10; Elwes, Trans. Ent. Soc. Lond. 1888, p. 455, pl. xi. fig. 9, ♂; Watson, Hesp. Ind. p. 77.
Isoteinon subtestaceus, Moore, t. c. p. 844; Watson, t. c. p. 78.
Isoteinon khasianus, Moore, t. c. p. 693; Watson, t. c. p. 78.

Hab. Sikkim (*Elwes*); Khasias (*Hamilton*); Nagas, Burmah (*Doherty*).

Atkinsoni varies in the ground-colour of the hind wing below and the development of the pale spots thereon; in typical examples the latter are well marked, but they are sometimes entirely absent, and many intermediate states occur: the unspotted or faintly marked examples (*subtestaceus*, M.) were regarded by Möller as the spring brood, and Watson got *atkinsoni* only in August and *subtestaceus* only in April. Watson says (P. Z. S. 1893, p. 82) that in the males of *atkinsoni* and *subtestaceus* there is attached along the basal half of the inner margin of the fore wing a tuft of longish hairs, which are turned up and spread out fanwise over the underside of the hind wing. In the male specimens of *atkinsoni* before us there is on the dorsum of the fore wing, from a point distant about one-fourth from the base of the wing to a point about the middlle of the dorsum, a fringe of long black hairs, which form a tuft pointing in the direction of the tornus and covering the middle portion of vein 1 *a*, which is deflexed so as to touch the dorsum, and is there thickened and channelled.

! ARNETTA VINDHIANA. (Plate XVIII. fig. 24, ♂.)

Isoteinon vindhiana, Moore, P. Z. S. 1883, p. 533; Watson, Hesp. Ind. p. 84.
Isoteinon nilgiriana, Moore, l. c.; Watson, l. c.
Isoteinon modesta, Moore, t. c. p. 534; Watson, l. c.

Hab. Jubbulpore (*fide Moore*); Nilgiris (*Hampson*); Mhow, Matheran (*fide Swinhoe*); Travancore (*in coll. Rothschild*).

ITYS.

Itys, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 377. Type *iadera*, de Nicé.

The following are the chief characters given by Mr. de Nicéville for this genus and are taken from the male:—Antennæ more than half as long as costa, club elongate slender, apiculus short. Palpi porrect, densely hairy, third joint almost concealed. Fore wing: dorsum considerably longer than the termen, vein 5 rather nearer 4 than 6, vein 2 a little nearer to the end of the cell than to the base of the wing; dorsum on the underside with a long tuft of hair-scales directed upwards and outwards. Hind wing much longer than broad. Abdomen slender, reaching to the tarsus of hind wing. Tibial epiphysis present. Hind "tibia with a single pair of long spines at its distal end."

Table of Species.

1 (2). Entire insect shining brownish fuscous . . . . . *iadera*, de Nicév.

2 (1). Upperside dark vandyke-brown suffused with purple. Fore wing below with four whitish hyaline spots, one each in cells 2, 3, 6, and 7, and a geminate cell-spot which is twice as high as wide. Hind wing below vandyke-brown, suffused with purple, with indistinct traces of three dark bands, one subbasal and two postmedian, and not more than four small ochreous-white spots, of which latter, according to the figure, there are two in cell 7, and one in the cell near its upper outer angle . . . . . *microstictum*, Wood-Mason [& de Nicéville.

ITYS IADERA.

Itys iadera, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 379, pl. Q. fig. 52, ♂.

Hab. Penang, N.E. Sumatra (*de Nicéville*).

ITYS MICROSTICTUM.

Isoteinon microstictum, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 385, pl. xvii. figs. 3 ♂, 3 *a* ♀; Watson, Hesp. Ind. p. 82.

Hab. Silcuri, Cachar (*Wood-Mason & de Nicéville*).

ZOGRAPHETUS.

Zographetus, Watson, P. Z. S. 1893, p. 84. Type *satwa*, de Nicév.

Species of small size, without markings on the hind wing above; no hyaline spot in cell 4 of the fore wing; alar sex-mark when present not of the kind found in *Halpe*. Basal portion of vein 5 of the fore wing decurved. The latter point is less evident in *satwa* than in *ogygia* and the other species here included in the genus. Antennæ about half as long as the costa (somewhat exceeding that length in the male of *ogygia*), the club and apiculus moderate and gradual. Palpi ascending, third joint short. Hind tibiæ with two pairs of spurs.

The species known to us may be distinguished as follows:—

1 (10). The largest or only pale spot in the cell of the fore wing placed next the lower edge of the cell.

2 (5). Hind wing below yellow or greenish yellow in the basal half, purple or brownish purple in the terminal half.

3 (4). Ground-colour of the fore wing above plain brown. Fore wing in the male with a distinct ridge or fold on each side of the prebasal fourth of vein 1 *a* and on each side of the basal third of vein 2. Hind wing below bright yellow, the termen broadly brownish purple . . . *satwa*, de Nicév.

4 (3). Ground-colour of the fore wing above brown with a dark purple shade. No sex-mark on the fore wing of the male. Hind wing below greenish yellow, the termen broadly purple-brown . . . . *durga*, Plötz.

5 (2). Hind wing below not as in paragraph 2.

6 (7). Male: fore wing above[1] with a tuft of long hair-like scales near the middle of the dorsum. Hind wing below yellow; termen narrowly brown from the tornus as far as vein 7; a brown spot next the transverse vein, a smaller one in cell 5, and three small subcontiguous brown rings, one each in cells 1 *b*, 2, and 3 . . . . . *flavalum*, de Nicév.

7 (6). No tuft of long hair-scales on the dorsum of the fore wing in the male.

8 (9). Hind wing below brown, with several suffused patches of yellow forming two series, a median and subterminal, the latter being the more distinct; about six more or less indistinct suffused dusky spots, one near the middle of cell 7, one near the middle of the upper edge of the cell, and a postmedian series of about four commencing in cell 2 and running parallel to the termen . . . . . *ogygia*, Hew.

9 (8). Hind wing below red-brown, with about seven suffused dark purple-brown spots, one near the middle of cell 7, one near the middle of the upper edge of the cell, and a postmedian series of five others placed one each in cells 1 *b*, 2, 3, 4–5, and 6, and running parallel to the termen . . . . . *ogygioides*, n. sp.

10 (1). The largest or only pale spot in the cell of the fore wing placed next the upper edge of the cell. Hind wing below yellow, with a nearly straight postmedian series of five oblong brown spots passing from just beyond the middle of vein 1 *b* to just beyond the middle of vein 6, and a more or less distinct suffused dusky terminal band . *auriferus*, n. sp.

ZOGRAPHETUS SATWA.

Isoteinon satwa, de Nicéville, Jour. As. Soc. Beng. 1883, p. 86; Watson, Hesp. Ind. p. 79.

Hab. Sikkim (*Elwes*); E. Pegu, Perak (*Doherty*).

! ZOGRAPHETUS DURGA.

Apaustus durga, Plötz, Stett. ent. Zeit. xlv. p. 153 (1884).

Isoteinon durga, Semper, Schmett. Philipp. p. 306, pl. xlix. fig. 10, ♂ (1892).

[1] See next page, under *flavalum*.

Resembles *I. satwa*, de Nicév., so closely that the differences only need be noticed. Fore wing with a dark purple shade throughout; no pale spot in cell 7, no modification of veins 1 and 2 by way of sex-mark; the yellow colour on the hind wing below more extensive but much less bright; club of antennæ pure white beneath.

Hab. Camaguin de Mindanao (*Semper*); Sambawa (*Doherty*).

ZOGRAPHETUS FLAVIPENNIS.

Isoteinon flavipennis, de Nieéville, Jour. As. Soc. Beng. 1885, p. 122, pl. ii. fig. 4, ♀; Watson, Hesp. Ind. p. 81.

Zographetus flavipennis, Watson, P. Z. S. 1893, p. 85.

The hind wing below is described as "ferruginous-ochreous, glossed and marbled with purple," and as having "a dark brown spot in the cell and a series of five or six similar spots placed around the cell." The figure shows the termen of the hind wing below rather broadly and suffusedly brown.

Col. Swinhoe has kindly lent us an insect from Sikkim (*Monro*), labelled by Mr. de Nicéville "*Isoteinon flavipennis*, de Nicéville, ♀," which agrees fairly well with the figure above cited. The underside of the hind wing of this specimen is dull red-yellow, darker next the termen, with seven dark purple-brown spots, one near the middle of cell 7, one near the middle of the upper edge of the cell, and a postmedian series of five others placed one each in cells 1 *b*, 2, 3, 4–5, and 6, and running parallel to the termen. The fore wing is remarkable for the large size of the hyaline spot in cell 6, which is oblong and nearly as large as that in cell 3; the one in cell 7 is punctiform. In cell 1 *a* on the fore wing above there is a yellowish-white spot next vein 1 *a* beyond the middle.

Hab. Buxa, Bhutan (*Moti Ram*); Sikkim (*Möller*); South Andaman Island (*de Roepstorff*). All *fide* de Nicéville.

ZOGRAPHETUS FLAVALUM.

Isoteinon flavalum, de Nicéville, P. Z. S. 1887, p. 463, pl. xl. fig. 10, ♂; Watson, Hesp. Ind. p. 83 (1891).

Hab. Sikkim.

Having regard to the statement in the original description of this species that there are "no secondary male sexual characters," it is well to note that in the type specimen (kindly lent to me by Mr. Rothschild) there is a tuft of long pale hair-scales occupying the middle third of the dorsum of the fore wing *above* directed very obliquely outward and upward and reaching as far as vein 1 *a*. It is, however, just possible that this tuft may have been misplaced in setting the insect, and that its normal position is on the *underside* of the fore wing, as in some other species.

! Zographetus ogygia.

Hesperia ogygia, Hew. Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 500 (1866).

Hab. Pulo Laut (*Doherty*); Labuan (*coll. Staudinger*).

Zographetus ogygioides, n. sp. (Plate XIX. fig. 9, ♂.)

♂. Upperside dark brown: fore wing with five yellowish-white spots placed as follows—one large and subquadrate in cell 2, one much smaller but also subquadrate in cell 3, an oblong one of moderate size near the apex of the lower edge of the cell, a punctiform one just above the one last named, and a small roundish one in cell 6; no evident sexual modification of veins 1 and 2. Underside: fore wing dark brown on the disc, paler along the dorsum, the extra-discal region concolorous with the hind wing, the pale spots as on the upperside; hind wing red-brown, with about seven suffused dark purple-brown spots, one near the middle of cell 7, one near the middle of the upper edge of the cell, and a postmedian series of five others placed one each in cells 1 *b*, 2, 3, 4–5, and 6, and running parallel to the termen. Fringes whitish grey, the short scales grey-brown. Antennæ dark brown, spotted with whitish beneath; club white on the upperside, apiculus pale red beneath. Body and legs brown. Second joint of palpi clothed with greyish-yellow and black hairs intermixed.

Expanse 27–28 mm.

Hab. Kina Balu (*Waterstradt*); Banguey (*coll. Stgr.*).

Described from three specimens, one from Gunong Ijan ex coll. Rothschild and two ex coll. Staudinger; one of the latter, that from Banguey, is a little smaller and paler than the other and wants the dark spot in cell 6 on the hind wing below.

! Zographetus auriferus, n. sp. (Plate XIX. fig. 13, ♂.)

♂. Upperside brown: fore wing with five white spots placed as follows—two oblong, one each near the base of cells 2 and 3, two very much smaller but also oblong, one each near the base of cells 6 and 7, and one, small and indistinct, near the apical third of the upper edge of the cell; no evident sexual modification of veins 1 and 2. Underside: fore wing brown, the extra-discal region more or less thickly clothed with yellow scales; the pale spots as on the upperside, a suffused and rather indistinct subterminal yellow macular band from the costa to vein 3: hind wing yellow, with a nearly straight postmedian series of five oblong brown spots passing from just beyond the middle of vein 1 *b* to just beyond the middle of vein 6, and a more or less distinct suffused dusky terminal band. Fringes grey, the short scales brown. Antennæ dark brown, finely spotted with yellowish white beneath and becoming entirely pale on the underside of the basal part of the club; apiculus pale red beneath. Body above brown. Second joint of palpi, breast, and legs clothed with yellow and black hairs intermixed. Abdomen beneath sordid yellowish white.

Expanse 25–26 mm.

Hab. Island of Nias (*Modigliani*).

Described from three specimens, one in coll. Elwes, one ex coll. Rothschild, and one ex coll. Staudinger; in the fore wing of the two latter the pale spots proper to cells 6 and 7 are wanting, and the pale cell-spot is only visible on the underside.

Scobura, nom. nov.

Isma, Watson, P. Z. S. 1893, p. 83, *nec* Distant, Rhop. Mal. p. 386 (1886).

The species here dealt with under this genus are associated on account of their general resemblance to *Hesperia cephala* and *H. bononia* of Hewitson, and the main distinguishing feature common to them all is the presence of pale spots in both fore and hind wings; the palpi are ascending, with an inconspicuous third joint, and there is no sex-mark on the wings of the male. Antennæ more than one-half, in some species two-thirds, as long as the costa; club slender, apiculus moderate and gradual. It comprises two natural sections, one consisting of *cephala* and *cephaloides*, and the other of *feralia* and its allies.

Watson, in his Revision of the genera of Hesperiidæ, characterizes a genus which he calls *Isma*, Distant, and gives *obscura*, Distant, as the type of it; but it appears from a statement of Mr. de Nicéville (Jour. Bomb. Nat. Hist. Soc. 1895, p. 378) that Watson's diagnosis of the genus *Isma* was drawn up from "*Hesperia*" *cephala*, Hew., and we find that it does not agree with the type specimen of *Isma obscura*, Dist. Under all the circumstances, it appears that the genus *Isma* of Watson requires another name, and that of *Scobura* has accordingly been applied to it.

The following is a table of the species known to us:—

1 (4). Fore wing: hyaline spots in cells 2 and 3, 2 and 4, or in cell 2 only, not in cells 2, 3, and 4. Hind wing below with the pale spots pure white and dark-edged.

2 (3). Fore wing: no hyaline spot in cell 3. Hind wing below yellowish green or greyish green, with a large white spot near the base of cells 4–5, touching veins 4 and 6.

2*a* (2*b*). Cell-spot of the fore wing not reaching the subcostal. Hind wing below yellowish green . . . . . *cephala,* Hew.

2*b* (2*a*). Cell-spot of the fore wing passing from the median to the subcostal. Hind wing below greyish green . . . . . *martini,* n. sp.

3 (2). Fore wing: no hyaline spot in cell 4. Hind wing below with the basal half yellow, the apical half reddish brown; a white spot about the middle of cell 1 *b*, and one each near the bases of cells 2, 3, and 5 . . . . . *cephaloides,* de Nicév.

4 (1). Fore wing with hyaline spots in cells 2, 3, and 4.

5 (14). Pale spots on hind wing oblong or cuneate or both.

6 (7). Hind wing below with two pale spots, one in cell 2 near the middle and the other in cell 3 near the base . . . . . *bononia*, Hew.
7 (6). Hind wing below with three contiguous pale spots, one in each of cells 2 and 3, and one in cells 4–5, and sometimes one or two others.
8 (13). Fore wing with two long unequal cell-spots.
9 (12). Hind wing below: pale spot in cell 2 subequal in length to or shorter than that in cell 3.
10 (11). Pale spot in cell 1*a* of the fore wing above as wide or wider than high, not reaching vein 2. No pale spot in cell of hind wing below . . . . . *feralia*, Hew.
11 (10). Pale spot in cell 1*a* of fore wing above nearly twice as high as wide, reaching quite across the cell. Hind wing below with a pale spot in the cell next the base of cell 3. Lower lobe of clasp produced into a sharp triangle . . . . . *fenestrata*, n. sp.
12 (9). Hind wing below: pale spot in cell 2 about twice as long as that in cell 3, the cell generally with a pale spot next the base of cell 3. Pale spot in cell 1*a* of fore wing above as wide or wider than high, not reaching vein 2. Lower lobe of clasp not produced into a triangle . . . . . *inarime*, de Nicév.
13 (8). Fore wing without any cell-spot . . . . . *concinna*, n. sp.
14 (5). Pale spots on the hind wing small and roundish.
15 (16). Hind wing: vein 2 arising near the half-length of the cell . . . *bipunctata*, n. sp.
16 (15). Hind wing: vein 2 arising near the apical third of the cell . . *umbrosa*, n. sp.

! Scobura cephala.

Hesperia cephala, Hewitson, Ent. Mo. Mag. 1876, p. 152; id. Descr. Lep. Coll. Atk. p. 4 (1879).
Isoteinon cephala, Elwes, Trans. Ent. Soc. Lond. 1888, p. 456, pl. xi. fig. 10 ♂; Watson, Hesp. Ind. p. 80.
Isma isota, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 320.

Hab. Sikkim (*Möller*); Burmah (*Watson*); E. Pegu (*Doherty*); Tavoy (*Tucker*); Shillong (*fide Swinhoe*).

Specimens in which the pale spot is absent from cell 4 of the fore wing are not uncommon; the type of *I. isota*, Swinh., is one of these.

Scobura martini, n. sp. (Plate XVIII. fig. 22, ♀.)

♀. Differs from *S. cephala*, Hew., in the following points:—The cell-spot of the fore wing reaches right across the cell and is rather more than half as long next the subcostal as it is next the median, and there is no white spot in cell 4; the hind wing below and the apical region of the fore wing pale greyish green, the former with a large hyaline spot across cells 4–5, and three small more or less distinct brown

spots, one before the middle of cell 6, one before the middle of cell 2, and one beyond the middle of cell 1 *b*.

Expanse 30 mm.

Hab. Battak Mountains, Sumatra (*Martin*).

Described from a single specimen in coll. Rothschild.

! SCOBURA CEPHALOIDES.

Hesperia? cephaloides, de Nicéville, Jour. As. Soc. Beng. 1888, p. 288, pl. xiii. fig. 4 ♂.
Isoteinon cephaloides, Watson, Hesp. Ind. p. 80 (1891).

Hab. Naga hills; Bernardmyo, Burmah (*Doherty*).

! SCOBURA BONONIA.

Hesperia bononia, Hewitson, Desc. Hesp. p. 29 (1868); id. Exot. Butt. v., *Hesp.* pl. vii. figs. 75, 76 (1876).
Isma bononia, Distant, Rhop. Mal. p. 386, pl. xxxv. fig. 20 (1886).

Hab. Pulo Laut (*Doherty*).

! SCOBURA FERALIA.

Hesperia feralia, Hewitson, Descr. Hesp. p. 31 (1868); id. Exot. Butt. iv., *Hesp.* pl. iv. fig. 32 (1869).

Hab. Kina Balu, Borneo (*Waterstradt*); Pulo Laut (*Doherty*); West Java (*Piepers*).

! SCOBURA FENESTRATA, n. sp. (Plate XIX. fig. 16, ♂; Plate XXIV. fig. 46.)

♂. Closely allied to *S. inarime*, de Nicév., which it resembles in the possession of a hyaline spot in the cell of hind wing below, next the base of cell 3. It is distinguished, however, by the shape of the white spot which stands on vein 1 *a* of the fore wing above, which is oblong, nearly twice as high as wide, reaching from vein 1 *a* to vein 2, and having its inner edge continuous with the inner edge of the white spot in cell 2.

Hab. Pulo Laut (*Doherty*). Type in coll. Elwes.

! SCOBURA INARIME. (Plate XXIV. fig. 47.)

Isma inarime, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 391, pl. vi. fig. 38 ♂.
Pamphila zetus, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 55 (1893).

Hab. Perak; Pulo Laut (*Doherty*); Java (*fide Mabille*). Type in coll. Elwes.

! SCOBURA CONCINNA, n. sp. (Plate XIX. fig. 12, ♀.)

♀. Upperside deep warm brown: fore wing with six irregular white spots, of which four placed one in each of cells 1 *a* to 4 form an oblique series from just beyond the middle of vein 1 *a* to cell 4, and two small oblong ones are placed one in each of cells 6

and 7: hind wing with three white spots on the disc, that in cell 2 oblong, that in cell 3 cuneate, and that in cell 4 roundish. Underside: fore wing blackish-brown on the disc, closely sprinkled with greenish-yellow scales in the costal and apical regions; pale spots as on the upperside save that the one in cell 1*a* is represented by a suffused white patch and a pale point is feebly indicated in cell 8: hind wing dull greyish green by reason of a close sprinkling of greenish-yellow scales on a brown ground, pale spots as on the upperside but feebly and irregularly dark-edged. Fringes pale grey, the short scales brown. Antennæ above blackish, spotted with white beneath; club white on the underside. Second joint of the palpi clothed with greyish-yellow and black hairs intermixed. Body above and legs brown; abdomen beneath and the tarsi yellowish grey.

Expanse 31 mm.

Hab. Pulo Laut, Borneo (*Doherty*).

This species, which is described from a single example in coll. Elwes, is well distinguished from its allies by the want of pale spots in the cell of the fore wing.

Scobura bipunctata, n. sp. (Plate XIX. fig. 2, ♀.)

♀. Upperside ochreous brown: fore wing with a yellow spot near the middle of cell 1*a* and seven hyaline spots—two small and remote in the cell, one in each of cells 2, 3, and 4 forming a rapidly decreasing series, and one in each of cells 6 and 7; hind wing with two small irregularly roundish hyaline spots on the disc, and one in each of cells 2 and 3. Underside: fore wing brown on the disc, the dorsal region pale yellowish grey nearly to the base, the costal and apical regions thickly clothed with greenish-yellow scales, the hyaline spots as on the upperside: hind wing dull greenish-yellow by reason of the thick clothing of greenish-yellow scales on a brown ground, a median band of small irregular, bare, and therefore brown, spots running parallel to the termen, the hyaline spots in cells 2 and 3 not so well defined as on the upperside. Fringe of the fore wing yellowish grey indistinctly chequered; of the hind wing greyish yellow on the upperside, on the underside with the short scales and a few long ones next veins 2 and 3, brown. Second joint of palpi clothed with greyish-yellow and black hairs intermixed. Antennæ above brown, spotted beneath with yellowish white; club white on the underside. Body above concolorous with the wings, abdomen beneath and legs paler.

Expanse 28 mm.

Hab. Palawan (*Platen*).

Described from a single specimen ex coll. Staudinger.

Scobura umbrosa, n. sp. (Plate XIX. fig. 1, ♀.)

♀. Upperside deep warm brown, dorsal region of the hind wing paler: fore wing with seven sordid white spots placed as follows:—one, roundish, near the middle of cell 1*a* next vein 1*a*, one, subquadrate, near the basal third of cell 2, one much smaller near

the basal third of cell 3, one, small and roundish, near the middle of cell 4, one in each of cells 6 and 7, and one, small and somewhat roundish, near the upper edge of the cell: hind wing with two small hyaline spots on the disc, one in each of cells 2 and 3, and sometimes with a third pale spot indicated by a feeble pale point in cell 5. Underside grey-brown, the disc of the fore wing darker towards the base; fore wing with the pale spots as on the upperside save that the one in cell 1 *a* is larger and suffused; hind wing with the pale spots in cells 2 and 3 as on the upperside and the pale point in cell 5 distinct. Fringe of the fore wing brown, becoming a little paler towards the tornus, of the hind wing dark grey feebly chequered. Antennæ above blackish, finely spotted with white on the underside, club yellowish white beneath. Second joint of palpi clothed with yellowish-grey and black hairs intermixed. Body and legs concolorous with the wings.

Expanse 33 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from two specimens ex coll. Staudinger.

Matapa.

Matapa, Moore, Lep. Cey. i. p. 163 (1881); Watson, P. Z. S. 1893, p. 85. Type *aria*, Moore.

A natural and easily recognized group of species, associated on account of their resemblance to the *Ismene aria* of Moore, for which he subsequently established the present genus. Wings above and below brown unspotted; fore wing pointed, termen nearly straight, on the upperside in the male bearing a narrow curved impressed marking from the middle of vein 1 *a* to the base of vein 3. Body stout; antennæ rather more than half as long as costa. Palpi appressed, very densely scaled, 3rd joint concealed.

The males of the species in coll. Elwes may be distinguished by the characters given below:—

1 (2). Fringe of hind wing below whitish grey, the basal half (*i. e.* the short scales) brown . . . . . *aria*, Moore.
2 (1). Fringe of hind wing below in greater part bright yellow.
3 (6). Fore wing above with the sex-mark black.
4 (5). Fore wing above with a purple shade in certain lights. Upper edge of lower lobe of clasp excavated . . . . . *purpurascens*, n. sp.
5 (4). No purple shade on fore wing above. Upper edge of lower lobe of clasp convex, even . . . . . *druna*, Moore.
6 (3). Fore wing above with the sex-mark whitish grey.
7 (8). Hind wing below with all the scales in the fringe to cells 1–3 bright yellow . . . . . *sasivarna*, Moore.
8 (7). Hind wing below with the short scales in the fringe to cells 1–3 dark, the long ones yellow . . . . . *shalgrama*, de Nicev.

! Matapa aria.

Ismene aria, Moore, P. Z. S. 1865, p. 784.

Matapa aria, Moore, Lep. Cey. vol. i. p. 164, pl. lxvi. figs. 1, 1 *a* (1881); Distant, Rhop. Mal. p. 378, pl. xxxv. fig. 8 (1886); Watson, Hesp. Ind. p. 22.

Hab. E. Pegu, Bali (*Doherty*); Andamans (*de Roepstorff*); Ganjam (*Minchin*); N. Canara (*Aitken*); Java (*Piepers*); Philippines (*Semper*); Palawan (*Platen*).

! Matapa purpurascens, n. sp. (Plate XX. fig. 1, ♂; Plate XXIV. fig. 48.)

♂. Upperside brown, with a purple shade which is strongest on the apical half of the fore wing, sex-mark blackish. Underside brown, fore wing with the dorsum and apex suffusedly paler. Fringe of the fore wing whitish grey, of the hind wing deep yellow from the tornus about as far as vein 6, thence to the apex brown. Antennæ brown, spotted with yellowish beneath, club yellowish on the underside. Clothing of palpi, body, and legs concolorous with the wings.

Expanse 40 mm.

Hab. Khasias (*Hamilton*); E. Pegu (*Doherty*).

Described from two males in coll. Elwes, where, however, there is no female which can be certainly identified as the female of this species, although there are two purpurascent females, one from Sikkim with the underside entirely pale grey-brown, and the other from Tavoy with the underside as in *M. druna*; both these females have the clothing of the apex of the abdomen yellow.

This species is nearest to *M. druna*, Moore, from which it differs in having a purple shade on the fore wing above, and also in the clasp-form of the male.

Doherty has sent from East Pegu no less than three species of this genus—*purpurascens*, *sasivarna*, and *shalgrama*, and also a single female which does not agree with any of those species; it has not the purple shade on the upperside proper to *purpurascens*, the underside is too pale and the yellow clothing of the apex of the abdomen too extensive for *sasivarna* (of which, moreover, I have typical females from East Pegu), and it has not the pale red-brown underside nor the brown clothing to the apex of the abdomen proper to *shalgrama*; its underside is pale grey-brown, and the clothing of the abdomen beneath is orange-yellow through rather more than its apical third; the fringe of the hind wing is orange-yellow, passing into pale grey-brown next cells 4–8; the colour of the hind wing below is uniform and not paler in the basal third as usual in *druna* ♀, and the pubescence of the hind part of the thorax and of the basal part of the hind wing above shows in certain lights a brilliant greenish-blue colour.

! Matapa druna. (Plate XXIV. fig. 49.)

Ismene druna, Moore, P. Z. S. 1865, p. 784, ♂; Wood-Mason and de Nicéville, Jour. As. Soc. Beng. 1881, p. 255 ♀.
Matapa druna, Watson, Hesp. Ind. p. 23.

Hab. Sikkim (*Möller*); Andamans (*de Roepstorff*); Kina Balu (*Waterstradt*).

! Matapa sasivarna.

Ismene sasivarna, Moore, P. Z. S. 1865, p. 784.
Matapa sasivarna, Watson, Hesp. Ind. p. 23.

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); E. Pegu, Perak, Pulo Laut (*Doherty*); Tavoy (*Tucker*).

! Matapa shalgrama.

Hesperia aria, Hewitson (*nec* Moore), Exot. Butt. vol. iv., *Hesp.* pl. iii. figs. 24, 25, ♀ (1868); *fide* de Nicéville *l. c. post.*
Matapa shalgrama, de Nicéville, Jour. As. Soc. Beng. 1883, p. 85; Watson, Hesp. Ind. p. 24.

Hab. Sikkim (*Möller*); E. Pegu, Pulo Laut, Bali (*Doherty*); Java (*Fruhstorfer*).

Sepa.

Sepa, de Nicéville, Jour. As. Soc. Beng. 1894, p. 50. Type *cronus*, De Nicév.

This genus will include certain species distinguished from *Parnara* by having vein 5 of the fore wing straight and practically intermediate between vein 4 and vein 6.

Antennæ more than half as long as costa, reaching nearly to the end of the cell, club gradual, apiculus about one fourth as long as the club. Palpi with the second joint densely scaled, third joint short, nearly or quite concealed. Fore wing moderately pointed, costa about one-fourth longer than the dorsum, termen moderately curved, a trifle shorter than the dorsum; vein 5 straight, practically intermediate between vein 4 and vein 6, base of cell 3 a little shorter than that of cell 4. Hind tibiæ with two pairs of spurs.

The linear sex-mark on the fore wing in the first three species is most easily observed whilst the wing is wet with benzole.

Males.

1 (10). Fore wing with distinct hyaline spots.
2 (7). Sex-mark on fore wing above linear, being merely a ridge forming the inner boundary of the hyaline spot in cell 2, and sometimes continued across cell 1*a*.
3 (6). Sex-mark reaching from vein 1 *a* to vein 3.

4 (5). Sex-mark angulated near the middle, erect from near the middle of vein 1 *a* as far as vein 2, thence oblique to the base of vein 3. Hyaline spot in cell 2 of fore wing above linear, no white spot near the middle of cell 1*a*. Hind wing below with a pale dot in each of cells 2 and 4 and the indication of another next the transverse vein. Fringe of the hind wing gradually increasing in length from vein 2 to the tornus, where it is about three times as long as at vein 2 . . . . . *cronus*, de Nicév.

5 (4). Sex-mark continuous, slightly oblique throughout. Hyaline spot in cell 2 of the fore wing above oblong, rather more than twice as high as wide, a small white spot near the middle of cell 1*a*. Hind wing below with a small pale spot near the basal third of each of cells 2 and 3. Fringe of the hind wing normal or nearly so . . *cicatrosa*, n. sp.

6 (3). Sex-mark between veins 2 and 3 only, not extended across cell 1*a*. A long-oval slightly raised space near the base of cell 1*a* and lying next to vein 1 *a*, which is there slightly sinuate . . . . *miosticta*, de Nicév.

7 (2). Sex-mark a long-oval raised space near the base of cell 1*a* and lying next to vein 1 *a*, which is there sinuate.

8 (9). Fore wing with two unequal cell-spots . . . . . *guttulifera*, n. sp.

9 (8). Fore wing without cell-spots . . . . . *cinnamomea*, n. sp.

10 (1). Pale spots absent from the fore wing or only sharply defined on the underside.

11 (14). Dorsum of the fore wing feebly sinuate and bearing on its middle third a thin fringe of long hairs directed obliquely outward and downward.

12 (13). Fore wing with pale spots, feebly indicated on the upperside, sharply defined on the underside. Hind wing below with a pale point in each of cells 2 and 3 and sometimes the indication of another in cell 6 . . . . . *biseriata*, n. sp.

13 (12). Wings brown, entirely unspotted . . . . . *ciliata*, n. sp.

14 (11). Dorsum of the fore wing normal. Wings brown, entirely unspotted. *noctis*, Stgr.

SEPA CRONUS.

Sepa cronus, de Nicéville, Jour. As. Soc. Beng. 1894, p. 50, pl. v. fig. 4 ♂.

Hab. Battak Mountains, N.E. Sumatra (*in coll. Martin*); Kina Balu, Borneo (*Waterstradt*); Gunong Ijan (*in coll. Rothschild*).

The following is the description of a female *Sepa* from Gunong Ijan ex coll. Rothschild, which may or may not be the female of *S. cronus*, the male of which from the same locality is in the same collection.

♀. Upperside brown; fore wing with seven sordid white hyaline spots placed as follows:—one, quadrate, across the basal third of cell 2, one, also quadrate, across the basal third of cell 3, one, small and narrow, before the middle of cell 4, one, small and roundish, in each of cells 6 and 7, and two in the cell, the upper one punctiform, the

lower one larger and suboval. Underside brown; dorsal region of the fore wing as far as vein 2, except at the base and apex, suffusedly pale grey. Fringes concolorous with the wings. Antennæ blackish, minutely spotted with white in front; club broadly white on the underside next the apiculus. Body above concolorous with the wings. Clothing of the second joint of palpi of whitish and black hairs intermixed, of the breast of yellowish and black hairs intermixed, of the legs brown. Abdomen beneath grey.

Expanse 34 mm.

Sepa cicatrosa, n. sp. (Plate XIX. fig. 4, ♂.)

♂. Upperside rather pale brown: fore wing with two small indistinct white cell-spots, a round white spot in each of cells 6 and 7 and a minute white point in cell 8, an erect oblong white spot standing on vein 1*a* near the middle and reaching halfway across cell 1*a*, an oblong white spot standing on vein 2 before the middle and passing obliquely to the base of vein 3, a white spot near the basal third of cell 3, and a small linear erect white spot near the middle of cell 4, the inner edge of the white spots in cells 1*a* and 2 is bounded by a linear ridge of androconia: hind wing with a white point in each of cells 2 and 3. Underside paler than above; the pale spots as on the upperside save that the one in cell 1*a* is represented by an oblong patch of white scales reaching quite across cell 1*a* and similar in size and shape to that in cell 2. Fringes brown, that of the hind wing showing a tendency to elongation next the tornus. Antennæ above blackish, spotted with white beneath, club whitish on the underside.

Expanse 33 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one male in coll. Staudinger.

! Sepa miosticta.

Parnara miosticta, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 385, pl. G. fig. 31 ♂.

Hab. Perak (*Doherty*). Type in coll. Elwes.

Sepa guttulifera, n. sp. (Plate XIX. fig. 8, ♂.)

♂. Upperside deep warm brown: fore wing with two unequal suboval yellowish-white cell-spots of which the lower one is much longer than the upper, a small yellowish-white spot in cell 1*a* next to vein 1*a* near the middle, a large subquadrate yellowish-white spot near the middle of cell 2, a small yellowish-white spot near the basal third of cell 3, and a small yellowish-white spot in each of cells 6 and 7; near the base of cell 1*a* and next to vein 1*a*, which is there slightly sinuate, a long-oval raised space: hind wing sometimes with two pale dots, one in each of cells 2 and 3. Underside paler brown than the upperside, the pale spots as on the upperside save that there is a

very minute pale dot near the middle of cell 4, and that the pale spot in cell 1 *a* is represented by a whitish blotch near the middle of that cell. Fringe of the fore wing brown, of the hind wing paler, inclining to yellow-brown near the middle; the short scales brown. Antennæ above blackish, spotted with white beneath; club whitish on the underside. Body and legs concolorous with the wings. Second joint of palpi clothed with greyish-yellow and black hairs intermixed.

Expanse 38 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from two specimens in coll. Staudinger.

Sepa cinnamomea, n. sp. (Plate XIX. fig. 25, ♂.)

♂. Upperside brown, inclining to yellow-brown; fringe of the hind wing yellow except at the apex: fore wing above with four hyaline spots—one large, about one-half higher than wide, across cell 2 near the middle, and one in each of cells 3, 6, and 7, that in cell 7 very minute; a long-oval raised space near the base of cell 1 *a* and lying next to vein 1 *a*, which is there slightly sinuate: hind wing above sometimes with the pale spots proper to the underside faintly showing through. Underside much paler than the upperside: fore wing with the pale spots as on the upperside: hind wing with three small pale discal spots, one near the basal third of each of cells 2 and 3 and one in cells 4–5, the latter sometimes only represented by a pale point near the basal third of cell 5. Fringe of the fore wing grey-brown; of the hind wing grey-brown in cells 6 and 7, the remainder yellow in fresh, yellowish grey in somewhat faded specimens. Antennæ blackish above, spotted with white beneath, club whitish on the underside. Second joint of palpi clothed with yellow hairs, with black ones intermixed. Body beneath and tarsi yellowish.

Expanse 32–34 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from two specimens in coll. Staudinger.

Sepa biseriata, n. sp.

Parnara? species? Semper, Schmett. Philipp. p. 299 (1892).

♂. Upperside warm brown: fore wing with four very indistinct pale spots, one near the upper outer angle of the cell and one in each of cells 2, 3, and 6; dorsum feebly sinuate and bearing on its middle third a fringe of long hairs directed obliquely outward and downward. Fore wing below rather paler than above; middle third of the dorsum thickly fringed with long hairs directed obliquely upward and outward, of which those nearer the base are more obliquely placed than the remainder; the pale spots placed as above, but sordid white in colour, that in cell 2 twice as high as wide and reaching quite across the cell just before the middle, the others small and roundish; the middle of the

dorsum, where it is in great part covered by the upper series of the fringe of hair-scales, is pale grey: hind wing with two small, feeble, roundish, sordid white spots, one before the middle of each of cells 2 and 3. Fringe brownish grey, the short scales brown. Antennæ, body, and legs concolorous with the wings, the clothing of the scapulæ appearing metallic green in a strong light.

Expanse 32 mm.

Hab. Philippines (*Semper*).

Described from Herr Semper's single male specimen from Central Luzon and one from Mindoro in coll. Staudinger. The latter differs from the former only in having a small pale spot in each of cells 7 and 8 on the fore wing below.

! Sepa ciliata, n. sp. (Plate XIX. fig. 22, ♂.)

♂. Upperside dark brown with a faint purple shade. Dorsum of the fore wing sinuate and bearing on its middle third a fringe of long hairs, which are directed obliquely outward and downward. Underside similar in colour; dorsal region of the fore wing pale brown as far as vein 2, the dorsum bearing on its middle third a thick fringe of long hairs directed obliquely upward and outward, of which those nearer the base are more obliquely placed than the remainder. Fringes brown. Antennæ, body, and legs concolorous with the wings.

♀. Similar to the male, but a little larger and paler.

Expanse, ♂ 32 mm., ♀ 35 mm.

Described from a single pair from Pulo Laut (*Doherty*).

Type in coll. Elwes.

! Sepa noctis.

Pamphila noctis, Staudinger, Iris, ii. p. 143 (1889).
Plesioneura dissimilis, Snellen, *in litt.*
Pamphila perfusca, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 53 (1893).

A little larger than the preceding species, with no purple tinge, and no infra-alar tuft on the fore wing of the male.

Hab. Palawan, Mindanao (*in coll. Staudinger*); Pulo Laut (*Doherty*); W. Java (*Piepers*); Sumatra (*Martin, in coll. Rothschild*).

Herr Snellen has kindly sent us a pair of his *Plesioneura dissimilis*. The male we are unable to distinguish from "*Pamphila*" *noctis*, Stgr., of which we have several specimens, including one from Dr. Staudinger. The female is a brown insect with a broad white discal band on the fore wing between the upper edge of the cell and vein 2, composed of the following hyaline white spots, namely—a large oblong one across the cell near its apical third, a small one filling up the base of cell 3, and a large one, oblong with rounded angles, in cell 2. Save that the white band on the fore wing is cut short by vein 2 and there is no suffused white subtornal patch on the fore wing below.

it agrees well with the description and figure of *Notocrypta monteithi*, Wood-Mason and de Nicéville (Jour. As. Soc. Beng. 1886, p. 391, pl. xviii. figs. 3, 3 *a*, ♀). As, however, Herr Snellen tells us that this female "is certainly the other sex [of his *P. dissimilis*], being bred from the larva by Mr. Piepers," we do not feel justified in placing it in the genus *Notocrypta* as we should have done.

We have seen a female from North Borneo in coll. Rothschild which agrees with the description and figure of *N. monteithi*, and is similar to Herr Snellen's female.

Acerbas.

Acerbas, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 381. Type *anthea*, Hew.

This genus was established by Mr. de Nicéville for the *Hesperia anthea* of Hewitson. We associate with the latter species three others which in form, colour, and pattern resemble it more than they do any other species known to us; they differ, however, from *anthea* in wanting an alar sex-mark in the male, and from that species and each other in venation.

We distinguish the species as follows:—

1 (2) Cell-spot normally absent from fore wing. Cell of hind wing at least half as long as the wing. Disc of fore wing below in the male covered with modified scales . . . . . *anthea*, Hew.

2 (1) Cell-spot normally present in the fore wing. Cell of hind wing distinctly less than half as long as the wing. No alar sex-mark in the male.

3 (6). Base of cell 4 about one-fourth as long as the base of cell 3. Band on the hind wing below dull white. One pale spot in cell of fore wing near its upper edge.

4 (5). White band on hind wing above evanescent towards the costa. Dark part of underside plain brown. Pale band on the hind wing below white throughout, a little contracted next the costa . . . *martini*, Dist.

5 (4). White band on hind wing above broad, sharply defined, abruptly cut short at vein 6. Dark part of underside brown, with a distinct purple shade, which is strongest in the apical region of the fore wing. Pale band on hind wing below white, becoming yellow in cells 7 and 8, not contracted next the costa . . . . . *duris*, Mab.

6 (3). Base of cell 4 about half as long as the base of cell 3. Band on hind wing below glistening white. Two pale spots in cell of fore wing . . . . . *nitidifasciata*, n. sp.

! Acerbas anthea.

Hesperia anthea, Hewitson, Descr. Hesp. p. 29 (1868).
Plesioneura? *anthea*, Distant, Rhop. Mal. p. 404, pl. xxxv. fig. 32 (1886).
? *Carystus tagiadoides*, Mabille, *sec. spec. comm.*

Hab. Pulo Laut (*Doherty*).

! Acerbas martini. (Plate XXIV. fig. 50.)

Zea martini, Distant, Ann. & Mag. Nat. Hist. ser. 5, vol. xix. p. 274 (1887).

Hab. Pulo Laut (*Doherty*).

! Acerbas duris.

Carystus duris, Mabille, Comptes Rendus Soc. Ent. Belg. iii. no. 31, p. lix (1883).
Lotongus duris, Semper, Schmett. Philipp. p. 289, pl. xlix. fig. 7, ♀ (1892).
Carystus mabillei, Staudinger, MSS.

Hab. Philippines (*Semper*); Kina Balu, Borneo (*Waterstradt*).

Though the characters given in the table seem sufficient to separate the few specimens (only six in all) that we have seen of these two species, yet the occurrence of both of them in Borneo throws some doubt on the constancy of the differences, and we have seen no female of *martini* as yet. The female of *duris* is similar to the male. The male genitalia of the two forms do not afford material for their separation.

! Acerbas nitidifasciata, n. sp. (Plate XX. fig. 9, ♂ ; Plate XXIV. fig. 51.)

Besides the characters given above this species may be distinguished from *A. martini* by its larger size (expanse 47 mm.) and the broader white band on the hind wing below. The latter at its greatest breadth extends from the cell at the level of the base of vein 2 as far as the apical third of cells 4–5; in *A. martini* this band at its greatest breadth extends from the cell at the level of the base of vein 2 only halfway across cells 4–5. In *A. nitidifasciata* the apex of the lower lobe of the clasp is simply rounded and serrate; in *A. martini* the same part is broadly truncate, and its inner angle is produced into a long strap-shaped lobe, rounded at the apex.

Hab. Labuan (*fide Staudinger*); N. Borneo (*Pryer*); Pulo Laut (*Doherty*).

Pudicitia.

Pudicitia, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 379. Type *pholus*, de Nicév.

This genus has been established by Mr. de Nicéville for his *Parnara pholus*, an insect of the size and shape of *P. assamensis*, Wood-Mason and de Nicév., and having deep yellow hyaline spots on both wings, those on the hind wing forming a transverse discal series. The course of vein 5 in the fore wing is not stated in the description, but vein 1 *a* in that wing has in the male "a narrow brand formed of modified black scales placed anteriorly against it along its basal second and third fifths."

Pudicitia is compared by its author with *Erionota*, Mab.

Pudicitia pholus.

Parnara pholus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 172, pl. B. fig. 3, ♀.
Pudicitia pholus, id. op. cit. 1895, p. 381.

Hab. Bhutan (*Möller*); Khasias (*fide de Nicéville*).

Erionota.

Erionota, Mabille, Ann. Soc. Ent. Belg. xxi. p. 34 (1878); Watson, P. Z. S. 1893, p. 86. Type *thrax*, Linn.

Large species expanding 60 to 90 mm. Hind wing with vein 7 almost equidistant between 6 and 8, veins 2 and 3 normal in both sexes.

We are acquainted with the three following species:—

1 (4). Pale spots on fore wing above yellow.
2 (3). Fore wing above: pale spot in cell 3 remote from the others, situate near the middle of the cell, variable in shape, but never wider than high . . . . . *thrax*, Linn.
3 (2). Fore wing above: pale spot in cell 3 occupying the basal half of the cell with the exception of the extreme base, and therefore only separated from that in cell 2 by vein 3 . . . . . *alexandra*, Semper.
4 (1). Pale spots on fore wing above pure white . . . . . *grandis*, Leech.

! Erionota thrax.

Papilio thrax, Linnæus, Syst. Nat. i. 2, p. 794 (1767); Donovan, Ins. Ind. pl. xlix. fig. 2 (1800).
Erionota thrax, Mabille, Ann. Soc. Ent. Belg. xxi. p. 35 (1878); Watson, Hesp. Ind. p. 107 (1891).
Telegonus acroleucus, Wood-Mason & de Nicéville, Proc. As. Soc. Beng., August 1881, p. 143.
Hesperia hiraca, Moore, Trans. Ent. Soc. Lond., September 1881, p. 313, ♀.
Hesperia acroleuca, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 260.
Telegonus lara, Swinhoe, Ann. & Mag. Nat. Hist. 1890, p. 365 (*fide Watson*).
Erionota acroleuca, Watson, Hesp. Ind. p. 107 (1891).

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); Pulo Laut, Sambawa, Bali (*Doherty*); Nias (*Modigliani*); Andamans (*de Roepstorff*); Philippines (*Semper*); Palawan (*Platen*).

Two specimens of *acroleuca*, named by de Nicéville, from the Andamans, seem to us inseparable from *thrax*, though they are conspicuously smaller.

Erionota alexandra.

Erionota alexandra, Semper, Schmett. Philipp. p. 312 (1892).

Hab. N.W. Luzon (*Semper*).

The larva of this species is very differently coloured to that of *E. thrax*

! Erionota grandis.

Plesioneura grandis, Leech, Entomologist, xxiii. p. 47 (1890).
Hidari grandis, Leech, Butt. China &c. p. 633, pl. xxxix. fig. 13, ♂ (1894).

Hab. West China (*Pratt*).

Gangara.

Gangara, Moore, Lep. Cey. i. p. 164 (1881); Watson, P. Z. S. 1893, p. 86. Type *thyrsis*, Fab.

This genus may be distinguished from *Erionota* by having veins 2 and 3 of the

hind wing more or less swollen in their basal half in the males, as in *Paduka*; the underside, too, has some bluish-white scales in suffused patches, or a pink shade towards the base.

The three species known to us are distinguished as follows:—

1 (4). Fore wing above with pale spots in cells 6, 7, and 8. No yellowish-white spot in the base of cell 7 of hind wing below.

2 (3). Fore wing above: pale spot in cell 6 remote from that in cell 7, that in cell 8 oblong. Male: fore wing above with a vein-like ridge arising out of the upperside of vein 1 *a* in its apical fourth, and running parallel to it nearly to the base, and a ridge on each side of the basal half of vein 2; fore wing below with an oblong patch of yellow hairs near the dorsum . . . . . *thyrsis*, Fab.

3 (2). Fore wing above: pale spot in cell 6 close to that in cell 7, that in cell 8 punctiform. Hind wing below brown, with a pink shade near the base, and a sub-basal and median series of suffused oblong greenish-brown spots . . . . . *sybirita*, Hew.

4 (1). Fore wing above without pale spots in cells 6, 7, or 8. Hind wing below with a yellowish-white spot near the base of cell 7. Male without a sex-mark on fore wing above, the tuft of hair near the dorsum of fore wing below much less evident than in *thyrsis* . *sanguinocculus*, Martin.

! GANGARA THYRSIS.

Papilio thyrsis, Fabricius, Syst. Ent. p. 582 (1775).

Hesperia pandia, Moore (Horsf. & Moore), Cat. Lep. Mus. E.I. C. vol. i. p. 254, pl. vii. figs. 10 larva, 10 *a* pupa (1857); Moore, P. Z. S. 1865, p. 790.

Gangara thyrsis, Moore, Lep. Cey. vol. i. p. 165, pl. lxvi. figs. 3, 3 *a* (1881); Distant, Rhop. Mal. p. 394, pl. xxxv. fig. 13 (1886).

Hab. Babuyanes, Luzon, Mindanao (*Semper*); Palawan (*Staudinger*); Akyab (*Adamson*); E. Pegu, Pulo Laut, Bali (*Doherty*); Java (*Piepers*); Andamans (*de Roepstorff*).

GANGARA SYBIRITA.

Hesperia sybirita, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 451 (1876).

Hidari sybirita, Distant, Rhop. Mal. p. 395, pl. xxxv. fig. 24 (1886).

We have only been able to examine a female of this species, but entertain no doubt as to its being properly placed in this genus.

Hab. Malay Peninsula, Singapore (*fide Distant*); Borneo (*Cator*).

! GANGARA SANGUINOCCULUS. (Plate XX. fig. 17.)

Erionota sanguinocculus, Martin, Einige neue Tagschmetterlinge von Nordost-Sumatra, p. 5 (München, pub. Gotteswinter 1895).

♂. Upperside brown: fore wing with three aureo-hyaline spots—one occupying the

apical third of the cell, one occupying cell 3 from the base to the middle, its outer edge obliquely concave and passing from the basal third of vein 4 to beyond the middle of vein 3, and one irregularly ovate and placed obliquely near the middle of cell 2, of which it occupies the entire width. Underside brown: fore wing with the hyaline spots as on the upper surface, cell 1 pale, except in its apical fifth, a suffused brownish-grey patch near the middle of the costa and a suffused patch of bluish-white scales reaching from the apex of the cell to the costa just before the apex of the wing; hind wing with a small sharply defined cream-coloured spot near the base of cell 7, cell 1 sparsely sprinkled throughout with bluish-white scales, and on the disc some suffused patches of bluish-white scales indicating an irregular median and postmedian band. Fringes concolorous, a little paler near the tornus of each wing. Body, palpi, legs, and antennæ brown, the latter brownish yellow on the underside of the club.

♀. Fore wing above with the hyaline spot in cell 3 completely filling up the base of that cell, and the hyaline spot in cell 2 forming a parallelogram, of which the upperside occupies the basal half of vein 3 and the lower side is separated from the base of vein 2 by two-fifths, and from the apex of vein 2 by one-fifth of the entire length of that vein. Otherwise like the male.

Expanse 52–53 mm.

Hab. Perak (*Doherty*); N.E. Sumatra (*Martin*).

The above description was drawn up from a single pair in coll. Elwes long before Dr. Martin's description appeared; and as the latter did not know the female, it has been allowed to stand.

Paduka.

Paduka, Distant, Rhop. Mal. p. 375 (1886); Watson, P. Z. S. 1893, p. 85. Type *glandulosa*, Dist., = *lebadea*, Hew.

Allied to *Matapa*; the sex-marks in the male constitute the main differences; there is in that sex a large tomentose patch on the disc of the fore wing above, a tuft of long hairs on the dorsum of the same wing below, and a conspicuous seam on the basal half of veins 2 and 3 of the hind wing above. There is but one described species, *lebadea*, Hew., a large insect expanding 51–65 mm. The male resembles a *Matapa* in the stout body, contour of wings, uniform brown coloration of the latter above, and the yellow fringe to the hind wing; the female (which appears to be hitherto undescribed) exactly resembles the male on the underside, but has three deep yellow spots on the fore wing and otherwise closely resembles *Erionota thrax*.

! Paduka lebadea.

Hesperia lebadea, Hewitson, Exot. Butt. iv., *Hesp.* pl. ii. figs. 22, 23 (1868).
Ismene subfasciata, Moore, P. Z. S. 1878, p. 686.

Matapa subfasciata, Moore, Lep. Cey. i. p. 164, pl. lxiv. figs. 3 *a*, *b* (1881); Watson, Hesp. Ind. p. 24 (1891).

Paduka glandulosa, Distant, Rhop. Mal. p. 376, pl. xxxv. fig. 5, ♂ (1886).

Hab. Perak, Pulo Laut (*Doherty*); Java (*Fruhstorfer*); Sikkim (*Knyvett*).

Watsonia, gen. nov.

Antennæ half as long as the costa; club moderate; apiculus acuminate, bent almost at a right angle, two-thirds as long as the club. Palpi appressed, second joint densely scaled, third almost concealed. Fore wing: distal two-thirds of the costa straight, dorsum two-thirds as long as the costa, about one-sixth longer than the termen; vein 5 straight, a trifle nearer to vein 4 than to vein 6, vein 12 approaching 11 in its apical fourth, base of cell 10 one-third longer than that of cell 9, of cell 8 about half that of cell 9, of cells 6 and 7 mere points, base of cell 3 about half as long as that of cell 4 and giving off a recurrent vein, that of cell 2 nearly or quite as long as the first median segment; transverse vein nearly parallel with the termen. Hind wing suborbicular, a little longer than broad; termen nearly straight between veins 1 *b* and 3; first and second subcostal and median segments subequal; cell less than half as long as the wing; transverse vein concave, slightly angulated at the origin of vein 5. No hyaline spots in either wing. Tibial epiphysis present; hind tibiæ with two pairs of spurs.

Differs from *Kerana* in the shorter antennæ, straighter costa to the fore wing, the position of vein 5, and the shorter base to cell 3 in the same wing.

! Watsonia swinhoei, n. sp. (Plate XX. fig. 6, ♂.)

♂. Upperside deep brown with a dull purple shade, except on the apical region of the fore wing. Underside brown: fore wing with the dorsum broadly pale brown and the apical region ochreous brown; hind wing with a faint purple shade. Fringes brown. Antennæ, palpi, body, and legs concolorous with the wings, antennæ a little paler in front.

♀. Similar to the male, but a little larger and paler.

Expanse, ♂ 47, ♀ 54 mm.

Hab. Khasia hills (*fide Swinhoe*).

Described from one pair given to me by Col. Swinhoe as a new genus and species. There are other specimens in Col. Swinhoe's collection.

Kerana.

Kerana, Distant, Rhop. Mal. p. 402 (1886); Watson, P. Z. S. 1893, p. 115. Type *armatus*, Druce.

No hyaline spots on either wing. Species brown or black above, generally with an oblique yellow or red-yellow band on the fore wing. Antennæ more than half as long

as costa; club slender; apiculus acute. Palpi appressed, third joint almost concealed. Fore wing: dorsum longer than the termen, vein 5 nearer 4 than 6; first and second median segments subequal in length, the third about two-thirds as long as the second, vein 12 feebly sinuate towards vein 11. Hind wing: first median segment about three times as long as the second, the third about one-fourth as long as the second.

The species known to us may be distinguished as follows:—

1 (6). Fore wing above with a red-yellow or yellow band.
2 (5). Pale band on fore wing above red-yellow, passing obliquely from the middle of the costa to the tornus.[1]
3 (4). Male with a black patch of androconia near the base of the hind wing above, coinciding with the cell. Expanse 50 mm. . . . . *armata*, Druce.
4 (3). No sex-mark on hind wing above in the male. Hind wing above with a small spot of pale purple scales in each of cells 2, 3, 5, and 6. Expanse 32–34 mm. . . . . *gemmifer*, Butl.
5 (2). Pale band on fore wing above yellow, very broad, passing from the dorsum towards the middle of the costa, where it is cut short by the upper edge of the cell, its outer edge convex, its inner edge passing obliquely from the apex towards the base and giving off along the dorsum a triangular tooth to the base of the wing . . *fulgur*, de Nicév.
6 (1). Entirely fuliginous or olive-brown above . . . . . *diocles*, Moore.

! KERANA ARMATA.

Astictopterus armatus, Druce, P. Z. S. 1873, p. 359, pl. xxxiii. fig. 7.
Kerana armata, Distant, Rhop. Mal. p. 402, pl. xxxv. fig. 31 (1886).

Hab. Perak, Pulo Laut (*Doherty*); Nias (*Modigliani*).

! KERANA GEMMIFER.

Astictopterus gemmifer, Butl. Trans. Linn. Soc. Lond., Zool. ser. 2, vol. i. p. 555 (1877).
Kerana gemmifer, Distant, Rhop. Mal. p. 403, pl. xxxiv. fig. 29 (1886); Watson, Hesp. Ind. p. 149 (1891).

Hab. Perak, Pulo Laut (*Doherty*); Bunguran, Natuna Is. (*Everett*); Penrisen Mt. (*in coll. Rothschild*).

KERANA FULGUR.

Kerana fulgur, de Nicéville, Jour. As. Soc. Beng. 1894, p. 55, pl. i. fig. 6, ♀; id. Jour. Bomb. Nat. Hist. Soc. 1895, p. 383, pl. Q. fig. 54, ♂.

♂. Upperside rich dark brown; fore wing with a very broad yellow median band passing from the dorsum towards the middle of the costa and cut short by the upper

[1] In a pair of specimens of *armata* from the Island of Nias the red-yellow band of the fore wing above is entirely wanting in the male and faintly indicated in the female.

edge of the cell; the outer edge of this band is nearly regularly convex, and its inner edge, which is straight and passes obliquely inwards and downwards, gives off along the dorsum a large triangular tooth to the base of the wing: hind wing with three divergent stripes of golden-yellow hairs from the base nearly to the middle. Underside paler brown than the upperside: fore wing with the yellow band as above, save that its inner boundary is wanting; an oblong brown spot from the middle of the base as far as vein 2, an oblong suffused red-yellow patch between the apical fourth of the cell and the costa, and a suffused yellow spot in the apex of the wing: hind wing with six pale bluish-purple spots placed as follows—three at equal distances in cell 1 *b*, one near the apical third of cell 2, one next the transverse vein, and one near the middle of the upper edge of the cell, and a few scales of a similar colour near the base of the costa. Antennæ brown; apex of the club and the apiculus beneath yellow. Second joint of palpi clothed with yellow scales, intermixed with black ones. Thorax concolorous with the base of the wings. The abdomen and legs are not in a condition for description.

Expanse 42 mm.

Hab. Borneo (*in coll. Cator*); Battak Mountains, Sumatra (*Martin*).

The above description of the male of this insect had already been written from a specimen from Borneo in the collection of Mr. D. Cator when Mr. de Nicéville's description appeared. The female we have not seen, but from Mr. de Nicéville's description and figure we gather that the band on the fore wing in that sex differs in colour and shape from that of the male, being red-yellow and passing obliquely from the middle of the costa towards the tornus, which it does not quite reach.

! Kerana diocles.

Nisoniades diocles, Moore, P. Z. S. 1865, p. 787.

Kerana diocles, Distant, Rhop. Mal. p. 403, pl. xxxiv. fig. 8 (1886); Watson, Hesp. Ind. p. 148.

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); Tavoy (*Tucker*); Perak, Pulo Laut (*Doherty*); Java (*Piepers*); Nias (*Modigliani*).

Ancistroides.

Ancistroides, Butler, Trans. Ent. Soc. Lond. 1874, p. 436; Watson, P. Z. S. 1893, p. 116. Type *longicornis*, Butler.

Nearest allied to *Kerana*, but differs from it in the relative proportions of the third median segment in both wings; that of the fore wing being one-third as long as the second, that of the hind wing about one-fourth as long as the second.

Ancistroides othonias. (Plate XXI. fig. 18.)

Astictopterus othonias, Hewitson, Ann. & Mag. Nat. Hist. ser. 5, i. p. 342 (April 1878).

Hab. Labuan, Kina Balu, Borneo (*Waterstradt*); N. Borneo (*Pryer, in coll. Rothschild*).

Pirdana.

Pirdana, Distant, Rhop. Mal. p. 376 (1886); Watson, P. Z. S. 1893, p. 116. Type *hyela,* Hewitson.

Wings unspotted. Species plain brown above or with a blue, green, or purple shade from the base of the wings outwards; tornus of hind wing more or less broadly yellow. Antennæ more than half as long as costa; club slender. Fore wing with the termen as long as or longer than the dorsum, at least in the male, the former straight from the tornus to vein 5; vein 2 from the basal third of the lower edge of the cell, vein 5 nearer 4 than 6. Hind wing: termen distinctly produced at vein 1 *b*; vein 2 from the apical third of cell. Hind tibiæ roughly scaled on the outer side, but not fringed with long hairs.

We distinguish the species known to us as follows:—

1 (6). With a sex-mark on the fore wing above in the male; antennæ above brown.

2 (5). Sex-mark on upperside of fore wing in the male consisting of a raised seam on each side of the basal third of vein 2 and the middle third of vein 1 *a*. Hind wing below purplish brown with green veins, or washed with green.

3 (4). Hind wing below purplish brown, the veins broadly and the dorsum pale green . . . . . *hyela,* Hew.

4 (3). Hind wing below purplish brown washed with green; veins concolorous; cells 1 *a* and 1 *b* purple, shot with green . . . . . *distanti,* Stgr.

5 (2). Sex-mark on the upperside of the fore wing in the male consisting of three oblong-oval patches of androconia, a large one near the base of cell 2, and two others much smaller, placed one above the other near the middle of cell 1 *a*. Hind wing below plain brown . . . *celsina,* Feld.

6 (1). No sex-mark on fore wing above in the male; antennæ above in greater part white . . . . . *albicornis,* n. sp.

! Pirdana hyela.

Hesperia hyela, Hewitson, Descr. Hesp. p. 23 (1867).
Pirdana hyela, Distant, Rhop. Mal. p. 376, pl. xxxv. fig. 6, ♀ (1886).
Pirdana rudolphii, Elwes & de Nicéville, Jour. As. Soc. Beng. 1886, p. 438, pl. xx. fig. 6, ♂.

As the type specimen of *P. rudolphii* is now in the Calcutta Museum, we only know it from the plate above referred to. The only difference between the figures of *rudolphii* and *hyela* from Borneo is the smaller extent of yellow at the anal angle in the former.

Hab. Perak, Pulo Laut (*Doherty*); Tenasserim (*Bingham*); Java (*fide Hew.*); Khasias (*coll. Swinhoe*).

! Pirdana distanti.

Pirdana distanti, Staudinger, Iris, ii. p. 141 (1889).
Pirdana pavona, de Nicéville, Jour. As. Soc. Beng. 1895, p. 540.

Hab. Malacca (*fide Staudinger*); Labuan (*fide Staudinger, in coll. Elwes*); E. Pegu, Perak (*Doherty*); ? Sikkim (*Lang, fide de Nicéville*); Buitenzorg, Java (*Piepers*).

This species seems constantly distinct from *hyela*, though its geographical range covers that of *hyela*. It is probably the species referred to from Sikkim by de Nicéville in our description of *P. rudolphii*.

Pirdana celsina.

Hesperia celsina, Felder, Reise Nov., Lep. iii. p. 512, pl. lxxi. fig. 12, ♀ (1867).
Pamphila celsina, Staudinger, Exot. Tagf. p. 298, pl. 99, ♂ (1888).
Tanyptera celsina, Semper, Schmett. Philipp. p. 294 (1892).

Hab. Celebes (*fide Felder*); Philippines (*fide Semper*).

Pirdana albicornis, n. sp. (Plate XXI. fig. 14, ♂.)

♂. Upperside: fore wing dark brown with a dull purple shade, glossed from the base almost to the middle with metallic greenish blue; hind wing dark brown as far as the apex of vein 4 and the apical fourth of the dorsum, thence bright yellow, the disc from the base glossed with metallic greenish blue. Underside verdigris-green; disc of the fore wing dark purple, the dorsum of that wing broadly pale brown: hind wing with the bright yellow subtornal region as on the upperside; cell I *b* black, glossed with metallic greenish blue. Fringe of the fore wing grey-brown, of the hind wing yellow from the tornus as far as vein 4, thence somewhat dusky. Antennæ in greater part white on the upperside, beneath blackish, with a white spot next the apiculus; club black; apiculus white. Clothing of second joint of palpi, breast, legs, and abdomen beneath yellow. Thorax above clothed with greyish-yellow and black hairs intermixed. Abdomen above brown.

Expanse 42 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one specimen in coll. Staudinger.

Plastingia.

Plastingia, Butler, Ent. Mo. Mag. 1870, p. 95; Watson, P. Z. S. 1893, p. 118. Type *flavescens*, Felder.

This genus is best distinguished by its facies, which is well exemplified in *P. callineura*, Felder.

Antennæ usually two-thirds as long as the costa; club slender; apiculus acute, recurved. Palpi appressed; third joint short, conical, almost concealed. Fore wing

pointed, termen straight, oblique; vein 5 nearer 4 than 6, vein 2 from the basal fourth of lower edge of the cell. Upperside brown, with pale spots in cells 2, 3, 6, and 7, one or two near the apex of the cell on the fore wing, and sometimes one in cells 4 and 5; the disc of the hind wing is more or less extensively yellow. Epiphysis present; hind tibiæ fringed and bearing two pairs of spurs.

There is some difference in the comparative length of the cell of the hind wing in the different species; it is longer in *P. tessellata*, Hew., than in the others. In *P. callineura*, Feld., and its allies, the base of cell 5 in the fore wing is about one and a half times as long as that of cell 4; in *P. tessellata*, *noemi*, &c., the bases of cells 4 and 5 in the fore wing are subequal in length.

The species known to us we distinguish as follows:—

Males.

1 (16). A hyaline spot in cell 4 of the fore wing.
2 (11). Hind wing below with pale purple or bluish-white spots.
2*a* (2*b*). Termen of the hind wing broadly and decreasingly yellow from the dorsum as far as vein 3 . . . . . *vermiculata*, Hew.
2*b* (2*a*). Termen of the hind wing not as above.
3 (8). Shaft of antennæ entirely pale beneath.
4 (7). Hyaline spots in cell of fore wing remote. Tegumen simple.
5 (6). Hind wing below: veins rather broadly vermilion-red. Lower lobe of clasp produced into two strong teeth at apex . . . . . *callineura*, Feld.
6 (5). Hind wing below: veins yellow. Lower lobe of clasp produced at the apex into one stroug tooth, the apical half of which is spiniform . . . . . *latoia*, Hew.
7 (4). Hyaline spots in cell of fore wing confluent. Tegumen with a short tooth on each side at the base . . . . . *margherita*, Dohy.
8 (3). Shaft of antennæ entirely blackish, club pale beneath.
9 (10). Fore wing above: basal three-fifths of cell 1 *a* filled up with yellow, the yellow colour spreading to the dorsum at the base. Hind wing above: cell entirely pale, the disc of the wing yellow from the dorsum as far as vein 6, the dorsum broadly yellow as far as the termen . . . . . *helena*, Butl.
10 (9). Fore wing above: an elongate triangular yellow spot in the basal half of cell 1 *a*, its apex reaching the base of the wing on vein 1 *a*. Hind wing above: upper half of the cell blackish, the yellow discal patch not reaching the dorsum, the latter dark brown with a yellow streak . . . . . *fruhstorferi*, Mab.
11 (2). No purple spots on hind wing below.
12 (13). Fore wing with the basal two-thirds of cell 2 hyaline. Hind wing below red-yellow, with irregular black dashes; a broad black line in the basal two-thirds of cell 7 . . . . . *aurantiaca*, n. sp.

13 (12). Hyaline spot in cell 2 of fore wing much less than half as long as the cell.

14 (15). Hind wing below brown, with the following pale yellow markings—a broad oblique postmedian band between veins 2 and 6, a broad stripe in cell 8, the apical third of cell 7 nearly as far as the termen, a stripe next the upper edge of the discoidal cell, a subterminal row of spots, one in each of cells 1 *b* to 6, and three rays, of which the innermost is the shortest, next the dorsum . . . . . *liburnia*, Hew.

15 (14). Hind wing below yellowish green with feeble pale spots, one near the bases of each of cells 2, 3, and 4, and sometimes a small one near the middle of cell 5, that in cell 4 oblong and occupying about the basal third of the cell . . . . . *telesinus*, Mab.

16 (1). No hyaline spot in cell 4 of the fore wing.

17 (20). Hind wing below chequered throughout with pale spots.

18 (19). Hind wing below brown, chequered with greyish-yellow spots . . *tessellata*, Hew.

19 (18). Hind wing below brown with dull silvery-white spots . . . . . *naga*, de Nicév.

20 (17). Hind wing below not chequered.

21 (22). Hind wing below yellow, with the termen narrowly, the tornus broadly, the veins, a short line in the discoidal cell next the outer half of its upper edge, and a line in the basal half of cell 1 *b*, black . . . . . *viburnia*, Stgr.

22 (21). Hind wing below: veins not black.

23 (24). Hind wing below unspotted, ochreous, blackish in cell 1 *a* . . . *corissa*, Hew.

24 (23). Hind wing below with a postmedian band of blackish spots (sometimes with pale centres) and one near the base of cell 7, one near the apex of the cell, and one near the base of cell 1 *b*.

25 (26). Expanse 34 mm. Fore wing above with the uppermost of the two pale spots in the cell small and roundish. Tegumen simple . . *similis*, n. sp.

26 (25). Expanse 39–40 mm. Fore wing above with the uppermost of the two pale spots in the cell oblong, as large as that in cell 6. Tegumen with a decurved horn on each side about the middle . *noëmi*, de Nicév.

! Plastingia callineura. (Plate XXIV. fig. 52.)

Hesperia callineura, Felder, Reise Nov., Lep. iii. p. 513, pl. lxxi. figs. 9, 10 (1866).

? *Plastingia callineura*, Distant, Rhop. Mal. p. 396, pl. xxxv. fig. 26 (1886); Watson, Hesp. Ind. p. 113 (1891).

Distant's description (*l. c.*) applies rather to the next species than to the true *callineura* of Felder, who correctly says of the hind wing below "venis ferrugineo-rufo marginatis." His plate, however, does not admit of identification with any of the species in coll. Elwes.

Hab. Kina Balu, Borneo (*Waterstradt*); E. Pegu, Perak (*Doherty*); Battak Mountains, Sumatra (*Martin*).

! Plastingia latoia. (Plate XXIV. fig. 53.)

Hesperia latoia, Hewitson, Deser. Hesp. p. 34 (1868); id. Exot. Butt., v. *Hesp.* pl. vi. figs. 62, 63 (1873).

? *Plastingia callineura* et var. *flavia*, Staudinger, Iris, ii. p. 150 (1889).

Distinguished from the preceding species by its slightly smaller size, the yellow veins on the hind wing below, and the single tooth into which the lower lobe of the clasp is produced.

The variety *flavia* from Palawan is said to be distinguished from *callineura* by its smaller size; it may possibly be a distinct species, but we have had no opportunity of comparing its male genitalia with those of *P. latoia*. A female from Palawan, ex coll. Rothschild, expands 39 mm., and very possibly represents a distinct species; it does not agree with the same sex of either *latoia* or *callineura*.

Hab. Pulo Laut (*Doherty*); East Java (*coll. Piepers*); Singapore (*fide Hewitson*); Selesseh, Sumatra (*in coll. Rothschild*).

! Plastingia margherita. (Plate XXIV. figs. 54, 54 *a*.)

Plastingia margherita, Doherty, Jour. As. Soc. Beng. 1889, p. 131, pl. x. fig. 5, ♂.

Hab. Margherita, Upper Assam (*Doherty*); Naga hills (*Doherty*).

As I have the type of this species, I am able to say that it seems as distinct a species as any in the genus, though closely allied to *latoia*.—H. J. E.

! Plastingia helena.

Plastingia helena, Butler, Lep. Exot. p. 190, pl. lxiv. fig. 3 (1874).

Hab. Sarawak (*Low, fide Butler*); Pulo Laut (*Doherty*); Namoe Ockor, Sumatra (*in coll. Rothschild*).

Plastingia vermiculata.

Hesperia vermiculata, Hewitson, Ann. & Mag. Nat. Hist. ser. 5, vol. i. p. 346 (1878).
Plastingia vermiculata, de Nicéville, Jour. As. Soc. Beng. 1894, p. 56, pl. v. fig. 15, ♂.

This species is distinguished by having the termen of the hind wing broadly and decreasingly yellow from the tornus as far as vein 3. The hind wing below has several large bluish-white spots or dashes.

Hab. Battak Mountains, Sumatra (*Martin, fide de Nicéville*).

! Plastingia fruhstorferi. (Plate XIX. fig. 19, ♂; Plate XXIV. figs. 55, 55 *a*.)

Plastingia fruhstorferi, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 52 (1893).

Hab. Java (*Fruhstorfer*); Pulo Laut (*Doherty*); Labuan (*coll. Staudinger*); Selesseh (*in coll. Rothschild*).

! Plastingia aurantiaca, n. sp. (Plate XIX. fig. 17, ♂.)

♂. Upperside: fore wing blackish brown with five hyaline spots, one in each of cells 2, 3, 4, 6, and 7, and another indicated by a small pale dash near the apex of the cell next its upper edge; an elongate rhomboidal spot in cell 1 *a* almost coinciding in length with the hyaline spot in cell 2, an acuminate streak next the costa from the base of the wing as far as the apex of cell 10, and a narrow border to the hyaline spots bright orange-yellow: hind wing with the disc irregularly, and a streak along vein 1*b*, orange-yellow. Underside: fore wing orange-yellow, with the costa and termen narrowly black; a subterminal band of blackish spots arising in a large subquadrate spot in the apex of cell 1 *a*, and decreasing in size towards the apex; a black streak from the end of the discoidal cell in part along the course of vein 5, and another in cell 8 continued towards the base along the upper edge of the discoidal cell; dorsum black as far as vein 1 *a*, and an oblong, black-edged, somewhat metallic pale spot in cell 1 *a* from the base of vein 2 to the base of the wing: hind wing deep orange-yellow, the costa and termen narrowly black; cell 1 *a* and the lower half of cell 1 *b* black, the former with an orange streak in its basal two-thirds; cell 1 orange-yellow; disc of the wing with several irregular black dashes placed as follows, namely—two in cell 7, of which the basal one occupies two-thirds of the length of that cell, two in each of cells 2, 3, 4–5, and 6, one in the discoidal cell, and three in cell 1 *b*. Fringes below orange-yellow, the short scales on the fore wing blackish. Antennæ blackish, the shaft yellow below from the base to the club. Clothing of palpi pale yellow, with a few black hairs intermixed. Clothing of body and legs orange-yellow.

Expanse 34–36 mm.

Hab. Pulo Laut (*Doherty*); Poeh, Sarawak (*in coll. Rothschild*).

Described from two males in coll. Elwes.

! Plastingia liburnia.

Hesperia liburnia, Hewitson, Descr. Hesp. p. 33 (1868); id. Exot. Butt. v., *Hesp.* pl. vi. figs. 58, 59 (1873).

Plastingia liburnia, Semper, Schmett. Philipp. p. 313 (1892).

Hab. Luzon, Mindoro, Camotes, Mindanao (*Semper*).

Plastingia telesinus.

Carystus telesinus, Mabille, Pet. Nouv. Ent. ii. p. 205 (1878).

Carystus lænas, Mabille, Comptes Rendus Soc. Ent. Belg. iv. p. cxix (1891).

Suastus telesinus, Semper, Schmett. Philipp. p. 300 (1892).

Hab. Luzon, Bohol (*Semper*).

This species seems to be most nearly allied to *P. corissa*, Hew., to which it bears considerable resemblance in the colour of the underside, but the latter species wants the pale spots on the hind wing below.

! Plastingia tessellata.

Hesperia tessellata, Hewitson, Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 494 (1866).
Hesperia eulepis, Felder, Reise Nov., Lep. iii. p. 517, pl. lxxii. fig. 12, ♂ (1867).
Plastingia tessellata, var. *palawata*, Staudinger, Iris, ii. p. 149 (1889).

Hab. Celebes (*fide Hewitson*); Palawan (*fide Semper*); Pulo Laut (*Doherty*); Battak Mountains, Sumatra (*Martin*).

! Plastingia naga.

Hesperia? naga, de Nicéville, Jour. As. Soc. Beng. (1883) p. 89, pl. x. fig. 2, ♀.
Plastingia naga, Watson, Hesp. Ind. p. 115 (1891); Semper, Schmett. Philipp. p. 314 (1892).

Hab. Sibsagar, Upper Assam (*Peal, fide de Nicéville*); E. Pegu (*Doherty*); Jaintia hills (*coll. Swinhoe*); Lawas, N. Borneo (*Everett*); Khasias (*in coll. Rothschild*); Battak Mountains, Sumatra (*Martin*); E. Mindanao (*Semper*).

Watson (P. Z. S. 1893, p. 118) puts this species as a synonym of *tessellata*, Hew., and as it resembles that species in all but the colour of the pale spots on the underside, we were, so long as we had seen female specimens only, inclined to adopt the same view, seeing that the type was a female; but having, through the kindness of Herr Semper, had the opportunity of examining one of his two males from E. Mindanao, which exactly agrees with the original description and figure as well as with female specimens in coll. Elwes, we are satisfied that it is a distinct species. It has been sent to us from Java by Staudinger as *tessellata*, Hew.

Plastingia viburnia.

Plastingia viburnia, Staudinger, *in. litt.*; Semper, Schmett. Philipp. p. 314 (1892).

Of this very distinct species the female resembles the male, save that the pale markings on the upperside are yellowish white instead of deep yellow.

Hab. Mindoro (*Semper*).

! Plastingia corissa.

Hesperia corissa, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, xviii. p. 455 (1876).
Plastingia drancus, Plötz, Stett. ent. Zeit. xlv. p. 149 (1884).
Isoteinon indrasana, Elwes & de Nicéville, Jour. As. Soc. Beng. 1886, p. 441, pl. xx. fig. 5, ♀ (*fide* de Nicéville); Watson, Hesp. Ind. p. 86 (1891).
Plastingia latonia, Staudinger, MS.

Hab. Kina Balu, Borneo (*Waterstradt*); Pulo Laut (*Doherty*); Battak Mountains, Sumatra (*Martin*).

Mr. de Nicéville identifies *I. indrasana*, which he described in the joint paper on Tavoy butterflies, cited above, as *I. corissa*. As the type is now in the Calcutta Museum, we take his word for it, but the plate does not represent our specimens correctly. A female of *P. latonia*, Stgr., marked by Dr. Staudinger as "typisch," differs from the same

sex of *P. corissa* in being a little larger, and in having the hyaline spots in cells 6 and 7 of the fore wing above longer, an oblong hyaline spot in cell 8, and a small irregular yellow spot in cell 5 near the lower outer angle of the spot in cell 6.

!Plastingia noëmi. (Plate XXIV. figs. 57, 57 *a*.)

Plastingia noëmi, de Nicéville, Jour. As. Soc. Beng. 1885, p. 120, pl. ii. fig. 15, ♂.

Hab. Sikkim (*Möller, fide de Nicéville, Knyvett*); E. Pegu (*Doherty*).

!Plastingia similis, n. sp. (Plate XIX. fig. 18, ♂; Plate XXIV. figs. 56, 56 *a*.)

Closely allied to *P. noëmi*, de Nicév., from which it differs in its smaller size, the less conspicuous yellow streak along the basal half of the costa of the fore wing above, and in the particulars set forth in the above Table of Species.

Expanse 34 mm.

Hab. Pulo Lant (*Doherty*).

Described from one male and two females in coll. Elwes.

Plastingia submaculata.

Plastingia submaculata, Staudinger, Iris, ii. p. 149, pl. ii. fig. 8, ♂ (1889).

Fore wing above with two cell-spots, a pale spot in each of cells 2 and 3, and a yellow streak from the base next the upper edge of vein 1 *a*. Hind wing below yellow-green, the dorsum darker, three black spots near the base, and six others forming a postmedian curved series.

Hab. Palawan (*Platen*).

We have not seen this species, which may not be a *Plastingia*; the figure of the fore wing below does not agree with the author's description.

Lotongus.

Lotongus, Distant, Rhop. Mal. p. 371 (1886); Watson, P. Z. S. 1893, p. 121. Type *calathus*, Hew.
Zea, Distant, t. c. pp. 369 & 377. Type *mytheca*, Hew.
Zela, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 386. Type *zeus*, de Nicév.
Zampa, de Nicéville, t. c. p. 389. Type *zenon*, de Nicév.

Antennæ (in the male) about two-thirds as long as the costa; club slender; apiculus acicular, reflexed, rather less than half as long as the club. Palpi appressed, densely scaled; third joint minute, acicular or obtuse, almost concealed. Fore wing: termen (in the male) longer than the dorsum, vein 5 nearer 4 than 6, vein 2 from the basal third of the lower edge of the cell, no hyaline spot in cell 4; in *calathus*, *zeus*, and *mytheca*, the base of cell 3 is about twice as long as the base of cell 4, and in *zenon*, *avesta*, *sarala*, and *excellens* the base of cell 3 is about one-third longer than the base of cell 4. Hind wing: cell less than half the length of the wing, termen very feebly excavated in cell 1 *b*. Epiphysis present; hind tibiæ fringed and bearing two pairs of spurs.

We find that the following species fall within the above definition :—

1 (10). Hind wing above plain brown.
2 (9). Hind wing below brown, with or without a whitish border round the apex.
3 (6). Cell-spot present on fore wing above.
4 (5). No sex-mark on fore wing above in the male. Fringe of hind wing not yellow in the tornal region. Hind wing below frequently more or less broadly whitish round the apex . . . . . *calathus*, Hew.
5 (4). Sex-mark on fore wing above in the male linear, blackish, erect from the middle of vein 1 *a* to the basal third of vein 2, thence oblique to near the base of vein 3. Fringe of hind wing yellow in the tornal region. *zeus*, de Nicév.
6 (3). No cell-spot on fore wing above.
7 (8). Hind wing above in the male with a tuft of long hairs near the base completely covering the cell; the latter very short, about one-third as long as the wing, transverse vein suberect, veins 3, 4, and 6 equidistant at the base and much thickened in their basal half. Hind wing below brown, yellowish next the transverse vein . . . . . *zenon*, de Nicév.
8 (7). Hind wing above in the male normal; below brown, with a sharply defined yellow transverse band from the apical third of the costa to the basal third of the dorsum but interrupted in cell 1 *b*. No cell-spot on the fore wing above . . . . . *avesta*, Hew.
9 (2). Hind wing below brown, with a white median band from the costa to vein 1 *b*, the breadth of this band equal to half the length of the wing. *mytheca*, Hew.
10 (1). Hind wing above in part yellow.
11 (12). Fore wing above with a cell-spot, no pale spots in cells 6, 7, or 8. Hind wing below with a yellow band having the same direction as in *avesta*. *sarala*, de Nicév.
12 (11). Fore wing above with a cell-spot and a pale spot in each of cells 6 and 7 or 6, 7, and 8. Hind wing below with a broad yellow band from the middle of the costa to the middle of cell 1 *b*, sometimes continued to the dorsum . . . . . *excellens*, Stgr.

! LOTONGUS CALATHUS.

Eudamus calathus, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 353 (1876).
Lotongus calathus, Distant, Rhop. Mal. p. 371, pl. xxxiv. fig. 14 (1886).
Lotongus maculatus, Distant, t. c. p. 372, pl. xxxv. fig. 1.
Hesperia parthenope, Weymer, Stett. ent. Zeit. xlviii. p. 17, pl. ii. fig. 8, ♀ (1887).
Plesioneura aliena, Staudinger, Iris, ii. p. 155 (1889), *sec. spec. typ.*
Lotongus parthenope, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1892, p. 354, pl. J. figs. 4 ♂, 5 ♀.
Proteides zalates, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 52 (1893).
Proteides surus, Mabille, Bull. Soc. Ent. Fr. 1895, p. lix.

Hab. Nias (*Modigliani*); Palawan; Kina Balu, Borneo; Java (*fide Staudinger*); Selesseh, Battak Mountains, Sumatra (*Martin*).

We have been obliged to unite the three supposed species of *Lotongus* upon which Mr. de Nicéville has written, we think, without sufficient material. We possess specimens

of both sexes from Distant's collection, with the label "Malacca, *Biggs*." The males are marked in his writing *maculatus*, the female *calathus*. A male from Pulo Laut agrees with these males. We have also three males and four females of *parthenope*, Weym., from the typical locality Nias, which vary considerably *inter se* in the very characters by which alone they can be separated from the Malacca and Bornean specimens, namely, the size and number of the spots on the fore wing in the male, and in the female by the amount of white on the apex of the hind wing below, which is present in both sexes of *calathus*, but in some females only of *parthenope*. The Javan form figured by de Nicéville as *parthenope* ♂ has only one spot in the cell, whilst two of our three males have two. The genitalia of the two forms are identical.

! Lotongus zeus.

Zela zeus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 388, pl. Q. fig. 57, ♂.

We give a description of this species, which had been prepared before Mr. de Nicéville's paper appeared.

♂. Upperside dark brown: fore wing with four hyaline whitish-yellow spots—one, about twice as high as wide, near the middle of cell 2, one, subquadrate, near the basal fourth of cell 3, one, oblong, near the base of cell 6, and one, longer than wide, in the cell, next the base of vein 3; sex-mark linear, blackish, erect from the middle of vein 1 *a* to the basal third of vein 2, thence oblique to near the base of vein 3: hind wing with the basal two-thirds thickly clothed with long fuliginous hairs. Underside brown: hind wing and basal two-thirds of the costal region of fore wing bright yellow-brown, a small feeble yellow spot next the transverse vein of the hind wing. Fringes of the fore wing whitish grey; of the hind wing bright yellow in the tornal region, passing gradually into whitish grey towards the apex; short scales dark on both wings except on the brightest of the yellow part. Antennæ brown; club slender, paler beneath; the apiculus equal in length to one-half of the clavate portion. Vein 2 of fore wing arising near the basal third of the cell. Body and legs concolorous with the upperside.

Expanse 39–47 mm.

Hab. Pulo Laut (*Doherty*); Mindoro (*coll. Semper*); Khasia hills (*fide Swinhoe*).

This species is the type of Mr. de Nicéville's genus *Zela*. A male specimen from the Khasia hills, ex coll. Swinhoe, of which we have compared the genitalia, is larger than specimens from Pulo Laut, expanding 47 mm., and the pale spots on the fore wing are reduced in size, that proper to cell 6 being absent. Type in coll. Elwes.

! Lotongus zenon.

Zampa zenon, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 391, pl. Q. fig. 58, ♂.

This species, of which the type is in coll. Elwes, is the type of Mr. de Nicéville's genus *Zampa*.

The curvature of the dorsum of the fore wing in the male is correlated to the supra-alar tuft on the hind wing, and is not peculiar to this species. Cf. *Parnara oceia*, ♂.

Hab. Pulo Laut (*Doherty*).

! Lotongus avesta.

Hesperia avesta, Hewitson, Descr. Hesp. p. 30 (1868).
Lotongus avesta, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 383, pl. Q. fig. 56, ♀.
Pamphila tamiata, Stgr. MSS.

Hab. Kina Balu, Borneo (*Waterstrædt*); Pulo Laut (*Doherty*).

! Lotongus mytheca.

Hesperia mytheca, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, vol. xix. p. 81 (1877).
Zea mytheca, Distant, Rhop. Mal. p. 377, pl. xxxv. fig. 7 (1886).

Hab. Perak (*Doherty*).

! Lotongus sarala.

Parnara sarala, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, pl. B. fig. 6, ♀; Watson, Hesp. Ind. p. 48.

Hab. Khasia hills (*Hamilton*).

Both sexes of this species, which do not differ, are in the Elwes collection.

! Lotongus excellens.

Proteides excellens, Staudinger, Iris, ii. p. 141, pl. ii. fig. 6 (1889).

Hab. Pulo Laut (*Doherty*); Palawan (*Platen, fide Stgr.*); Sumatra (*in coll. Rothschild*).

Creteus.

Creteus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 385. Type *cyrina*, Hew.

This is a genus erected by Mr. de Nicéville for the *Hesperia cyrina* of Hewitson, a species which is remarkable for the presence of hyaline spots on the hind wing, placed as follows:—one in the cell next the transverse vein, one in the basal third of each of cells 2 and 3, and one near the middle of each of cells 6 and 7. The hyaline spots on both wings are apt to be reduced in size, and in a specimen from Borneo in which this is the case the hyaline spot proper to cell 2 of the hind wing is wanting altogether. The sex-mark on the fore wing above in the male consists of a streak of modified scales occupying about the middle third of vein 2.

! Creteus cyrina.

Hesperia cyrina, Hewitson, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 450 (1876); Watson, Hesp. Ind. p. 160 (1891).

Parnara parca, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 174, pl. B. fig. 10, ♀.
Pamphila meleagrina, Standinger, MSS.

Hab. Khasia (*Hamilton*); Kina Balu, Borneo (*Waterstradt*).

All the spots on both the Bornean specimens in coll. Elwes are smaller than in the Khasia one, but there is no other difference.

Unkana.

Unkana, Distant, Rhop. Mal. p. 369 (1886); Watson, P. Z. S. 1893, p. 123. Type *batara*, Moore, MS.

A genus established by Distant for *Ismene batara*, Moore, MS.

Sexes dissimilar. Fore wing with the full complement of hyaline spots, *i. e.* a cell-spot and one in each of cells 2 to 8 in both sexes. Antennæ (in the male) more than half as long as costa; club slender; apiculus acicular, about half as long as the club. Palpi appressed, densely scaled; third joint blunt, very short, almost concealed. Fore wing: termen in the male as long as or longer than the dorsum, cell 4 slightly narrowing to the base, vein 2 from the basal third of the lower edge of the cell, transverse vein oblique, base of cell 3 about twice as long as that of cell 4. Hind wing: termen angularly produced at vein 1 *b*, cell less than half the length of the wing. Epiphysis present; hind tibiæ fringed and bearing two pairs of spurs, the submedian pair small and appressed.

Watson, in his 'Revision,' places this genus (presumably after having examined the type species) in his Pamphilinæ, Section B, and *Erionota* in his Pamphilinæ, Section A. In his more recent paper, before referred to, he says that *batara* correctly belongs to the genus *Erionota*, and sinks the genus *Unkana* accordingly; but, since *batara* differs from *thrax*, the type of *Erionota*, much more than *thrax* does from *thyrsis*, the type of *Gangara*, there seems to be, even on his own estimate of genera, no good reason for such a course.

So far as we can judge, the *Erionota* (*Casyapa*) *mabillei*, Stgr., belongs here rather than to *Erionota*, and it is placed in this genus accordingly.

! Unkana attina.

Ismene batara, Moore, MS.; Horsfield & Moore, Cat. Lep. E.I. C. i. p. 249 (1857), ♂.
Hesperia attina, Hewitson, Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 489 (1866), ♀.
Hesperia latreillei, Felder, Reise Nov., Lep. iii. p. 511, pl. lxxi. fig. 8 (1866), ♀.
Goniloba cruda, Herrich-Schäffer, Prod. Syst. Lep. iii. p. 75 (1869).
Unkana batara, Distant, Rhop. Mal. p. 370, pl. xxxiv. fig. 11, ♂ (1886).
Unkana attina, Distant, t. c. p. 371, pl. xxxiv. fig. 30, ♀; Watson, Hesp. Ind. p. 4 (1891).

Hab. Malacca (*Biggs*); Perak (*Doherty*); Moulmein (*Adamson*); Java (*Fruhstorfer*) Palawan (*Platen*); Mindanao (*Semper*).

Unkana mabillei.

Erionota (Casyapa) mabillei, Staudinger, Iris, vol. ii. p. 135 (1889).

The male differs from that sex of *U. attina*, Hew., on the upperside by the want of pale spots in cells 4 and 5 and the different shape and sordid yellow colour of the remaining spots, that in the cell being one and a half times as wide as high; the hind wing below is brown, with some dull red spots near the lower angle of the cell, a broad irregular dark brown band gradually narrowing from the costa and almost reaching vein 1 *b*, and a large brown subtriangular patch next the base. Fringe of the fore wing whitish grey, the short scales brown; of the hind wing brown from the apex to vein 4, thence pale yellowish grey.

These particulars are taken from an example, ex coll. Staudinger, in which the hind wing below is much rubbed.

Hab. Labuan (*coll. Stgr.*); Palawan (*Platen, fide Stgr.*).

Hidari.

Hidari, Distant, Rhop. Mal. p. 395 (1886); Watson, P. Z. S. 1893, p. 123. Type *irava,* Moore.

Fore wing with the termen (in the male) as long as or longer than the dorsum; hind wing short, rounded; abdomen about one-fourth longer than hind wing. Antennæ about half as long as costa; club slender; apiculus acute, less than half as long as club. Palpi appressed, second joint densely scaled, third joint very short, blunt, almost concealed. Fore wing: vein 2 from the basal third of the lower edge of the cell, transverse vein oblique, base of cell 4 about half as long as the base of cell 3. Hind wing with the cell about half as long as the wing.

Distant includes in this genus three species, which we distinguish as follows:—

1 (4). Fore wing above with the pale spots free.
2 (3). Fore wing above with a pale spot near the middle of cell 1 *a* next vein 1 *a*, but, normally, no pale spots in cells 7 and 8; hind wing below with a small pale spot in the cell, near the base of vein 6 . . . . . *irava,* Moore.
3 (2). Fore wing above with no pale spot in cell 1 *a*, and a pale spot in each of cells 6, 7, and 8; no pale spot in the cell on hind wing below . . . *sybirita,* Hew.
4 (1). Fore wing above with the pale spots confluent and forming a broad irregular deep yellow band from the upper edge of the cell to vein 1 *a*. *staudingeri,* Dist.

! Hidari irava.

Hesperia irava, Moore; Horsfield & Moore, Cat. Lep. Mus. E.I. C. i. p. 254 (1857); Plötz, Stett. ent. Zeit. xliii. p. 328 (1882).

Hidari irava, Distant, Rhop. Mal. p. 395, pl. xxxiv. fig. 15, ♀ (1886); Watson, Hesp. Ind. p. 112 (1891).

Hab. Perak, Bali (*Doherty*); Java (*Piepers*).

HIDARI DOESOENA.

Hidaria doesoena, Martin, Einige neue Tagschmetterlinge von Nordost-Sumatra, p. 6 (1895).

Differs from *H. irava*, Moore, in having the pale spot in cell 2 of the fore wing only separated from the cell-spot by the lower boundary of the cell, and the small pale spot in the cell of the hind wing below white instead of yellow. We have not seen this species.

Hab. N.E. Sumatra (*Martin*).

HIDARI SYBIRITA.

Hesperia sybirita, Hewitsou, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 451 (1876).
Hidari sybirita, Distant, Rhop. Mal. p. 395, pl. xxxv. fig. 24 (1886).

Hab. Singapore (*coll. Hewitson*).

! HIDARI STAUDINGERI.

Hidari staudingeri, Distant, Rhop. Mal. p. 395, pl. xxxv. fig. 25 (1886).

Hab. Perak (*Doherty*).

HIDARI BHAWANI.

Hidari bhawani, de Nicéville, Jour. As. Soc. Beng. 1888, p. 291, pl. xiii. fig. 6, ♂; Watson, Hesp. Ind. p. 112 (1891).

Resembles *H. irava* in the spotting of the fore wing above, but the hind wing below is pale ochreous, coarsely striated transversely with brown, and there is a brown streak near the costa and another next the dorsum. We have not seen this species.

Hab. Arracan coast, Burma (*Bingham, fide de Nicéville*).

EETION.

Eetion, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 395. Type *elia*, Hew.

This is a genus erected by de Nicéville for the *Hesperia elia* of Hewitson, a species which is well distinguished from its immediate allies by the presence of hyaline spots on the disc of the hind wing; these form a transverse row and are placed one in each of cells 1 *b*, 2, 3, and 4–5. There is in the male a tuft of long hairs near the base of the dorsum of the fore wing below, and on the upperside of the fore wing a seam of modified scales passing obliquely inwards and downwards from the base of vein 3, nearly half of its length lying below vein 2.

! EETION ELIA.

Hesperia elia, Hewitson, Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 489 (1866).
Unkana elia, Distant, Rhop. Mal. p. 370, pl. xxxiv. fig. 25 (1886).

Hab. Singapore (*Godfrey*); Perak (*Doherty*).

Pithauria.

Pithauria, Moore, P. Z. S. 1878, p. 689; Watson, op. cit. 1893, p. 119. Type *murdava*, Moore.
Pithaariopsis, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 387; Watson, l. c. Type *aitchisoni*, Wood-Mason & de Nicév.

Fore wing rather narrow and pointed; thorax very stout; abdomen conical, not longer than the dorsum of the hind wing. Antennæ about half as long as costa; club slender; apiculus acicular, reflexed, at least one-half as long as the club. Palpi appressed, densely scaled, third joint almost concealed. Fore wing: no hyaline spot in cell 4, vein 2 arising near the half-length of the cell, vein 5 nearer 4 than 6. Hind wing: cell less than half as long as the wing, angulated at the origin of vein 7 and also at the origin of vein 2, vein 5 absent; termen feebly curved, nearly straight between veins 1 *a* and 7; tornus not distinctly produced. Epiphysis present; hind tibiæ with two pairs of spurs. Front coxæ in the male densely clothed with long hair-like scales, and in the same sex the disc of the hind wing above is densely clothed with long hair-like scales.

There are three species separable as follows:—

Males.

1 (4). No sex-mark on the fore wing above.
2 (3). The long clothing of hind wing above not conspicuously pale. *murdava*, Moore.
3 (2). The long clothing of hind wing above whitish grey . . . *stramineipennis*, de Nicév.
4 (1). A double sex-mark near the middle of cell 1 *a* on fore wing above, precisely similar to that found in the genus *Halpe*. *aitchisoni*, W.-M. & de Nicév.

! Pithauria murdava.

Ismene murdava, Moore, P. Z. S. 1865, p. 784.
Pithauria murdava, Moore, P. Z. S. 1878, p. 689, pl. xlv. fig. 13; Distant, Rhop. Mal. p. 378, pl. xxxv. fig. 9, ♂ (1886); Watson, Hesp. Ind. p. 27 (1891).

The female of this species has on the hind wing below a suffused subterminal pale band, and an oblong pale spot in each of cells 6 and 7, being thus distinguished from the female of *P. stramineipennis*, in which the hind wing below is uniform grey by reason of a sprinkling of whitish-grey scales on a pale greenish-brown ground; in one of my two specimens of the latter there is a feeble pale spot near the basal third of cell 6 on the hind wing below.

Hab. Sikkim (*Möller*); Khasia (*Hamilton*).

! Pithauria stramineipennis.

Pithauria stramineipennis, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 388, pl. xx. fig. 5, ♂; Watson, Hesp. Ind. p. 27 (1891); Leech, Butt. China &c. p 631, pl. xli. fig. 19, ♂ (1894).

Hab. Sikkim (*Möller*); Nagas (*Doherty*); Tavoy (*Tucker*).

! PITHAURIA AITCHISONI.

Pithauriopsis aitchisoni, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 387, pl. xv. fig. 4, ♂; Watson, Hesp. Ind. p. 28 (1891).

Pamphila glauca, Staudinger, *in litt.*

♀. Hind wing above brown, without the grey clothing found in the male. Hind wing below red-brown, paler along the dorsum, with the following pure white markings, namely:—a streak from the base along cell 7 as far as its middle, a streak in the basal half of cell 6, but not reaching the base of that cell, a series of four small oblong spots, one near the middle of each of cells 2, 3, 4, and 5, and sometimes another beyond the middle of cell 1 *b*. Otherwise like the male.

Described from a specimen from Kina Balu, Borneo, ex coll. Staudinger.

Hab. Kina Balu, Borneo (*Staudinger*); Java (*Piepers*).

NOTOCRYPTA.

Plesioneura, Felder, Wien. ent. Monatsb. vi. p. 29 (1862), *nom. præocc.* Type *curvifascia*, Felder.

Notocrypta, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 188; Watson, P. Z. S. 1893, p. 112. Type *curvifascia*, Felder.

Antennæ about two-thirds as long as costa, rather shorter in the female. Palpi ascending; third joint porrect, almost concealed. Fore wing: vein 5 arising much nearer 4 than 6, and having a distinct upward curve, or straight and practically intermediate between veins 4 and 6; vein 2 from the basal third of the lower edge of the cell. Hind tibiæ with two long pairs of spurs.

Species blackish brown above, with white hyaline markings on the fore wing, of which the most prominent is a more or less complete broad band passing from the middle of the costa to the distal third of the dorsum.

In 'Iris,' vol. ii. p. 151, Dr. Staudinger attempts to show that *signata*, Druce (P. Z. S. 1873, p. 360, pl. xxxiii. fig. 8), is an aberration of *alysos*, Moore; but this view is scarcely tenable, because, apart from the differences in the venation in the two insects, the band on the fore wing in *signata*, Druce (recte *Charmion ficulnea*, Hew.), is cut short by vein 2, which is not the case in *alysos*, Moore (recte *feisthamelii*, Bdv.).

The species dealt with in this paper may be distinguished as follows:—

1 (6). Vein 5 in the fore wing curved, its basal portion receding from vein 6; vein 5 therefore arising much nearer to vein 4 than to vein 6.

2 (5). Hind wing below without white spots.

3 (4). General direction of the termen of the fore wing forming a more or less obtuse angle with the dorsum. Fore wing above with or without white spots besides those forming the band . . . . . *feisthamelii*, Bdv.

4 (3). General direction of the termen of the fore wing forming a right angle with the dorsum. Fore wing above without white spots except those forming the band . *quadrata*, n. sp.

5 (2). Hind wing below with an angular white spot near the distal third of the cell and another near the basal third of cell 2 . . . . . *paralysos*, Wood-Mason & [de Nicév.

6 (1). Vein 5 in the fore wing straight, practically intermediate between veins 4 and 6.

7 (10). Base of cell 3 on the fore wing not filled up with white.

8 (9). Basal fifth or fourth of hind wing below yellow. Subtornal blotch on fore wing below obsolete or wanting . . . . . *basiflava*, de Nicév.

9 (8). Hind wing below pale brown. Subtornal blotch on fore wing below sordid white . . . . . *inornata*, n. sp.

10 (7). Base of cell 3 on the fore wing filled up by a triangular white spot . . . . . *monteithi*, Wood-Mason & [de Nicév.

NOTOCRYPTA FEISTHAMELII.

Thymele feisthamelii, Boisduval, Voy. Astr., Lép. p. 159, pl. ii. fig. 7 (1832).
Plesioneura curvifascia, Felder, Wien. ent. Mon. vi. p. 29 (1862).
Plesioneura alysos, Moore, P. Z. S. 1865, p. 789; id. Lep. Cey. i. p. 178, pl. lxvii. figs. 3 ♂, 3 *a* ♀, 3 *b* larva and pupa (1881); Distant, Rhop. Mal. p. 399, pl. xxxiv. fig. 7, ♂ (1886).
Plesioneura albifascia, Moore, P. Z. S. 1878, p. 843, pl. liii. fig. 3, ♂.
Plesioneura restricta, Moore. Lep. Cey. i. p. 178 (1881); Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1887, p. 390, pl. xvii. fig. 5, ♂.
Plesioneura volux, Mabille, Ann. Soc. Ent. Belg. 1883, p. lvi.
? *Plesioneura clavata*, Staudinger, Iris, ii. p. 153, pl. ii. fig. 9 (1889).
Notocrypta alysos, Watson, Hesp. Ind. p. 126 (1891).
Notocrypta albifascia, Watson, Hesp. Ind. p. 128 (1891).
Notocrypta feisthameli, var. *rectifascia*, Leech, Butt. China, &c. p. 627, pl. xxxviii. fig. 2, ♂ (1894).
Notocrypta curvifascia, Leech, t. c. p. 626, pl. xxxviii. fig. 1, ♂.
Notocrypta restricta, Leech, t. c. p. 627, pl. xxxviii. fig. 3, ♂; Watson, Hesp. Ind. p. 128 (1891).

Judging from the male genitalia it seems probable that there is but one species of this genus with the fringe of the hind wing grey-brown, the white band on fore wing above not cut short by vein 2, and having a dark sub-basal and median band, but no white spot on the hind wing below. The oldest name given to an insect falling within this definition is that of *feisthamelii*, Bdv. The presence or absence of small white spots on the fore wing, an opaque white patch on the fore wing below continuing the white band to the costa, or a white dash in each of cells 9 and 10 on the fore wing below between the hyaline spot in cell 8 and the costa, are particulars not sufficiently constant to be of any use as specific characters. The form *albifascia*, Moore, which we have from Java and Pulo Laut, a comparatively small insect with no white markings except the rather narrow band on the fore wing above, is very different in appearance

from the much larger typical *feisthamelii* (which we have also from Java), with its broad white band on the fore wing and five white spots besides; but there is nothing in the male genitalia of the two forms to prevent us from regarding the former as a depauperate local form of the latter.

The main differences in the several named forms consist in the greater or lesser number of white spots on the fore wing above, exclusive of those forming the discal band, and in a lesser degree the differences in the shape of the band itself and whether or not it is extended to the costa on the underside by a pale patch. Beyond those which form the discal band the largest number of white spots found on the fore wing above appears to be seven, namely, one in each of cells 3–9 inclusive; all or any of these may be absent, and specimens might in this respect be grouped under three heads: (*a*) those with no white spots, except those forming the band; (*b*) those with one spot, that in cell 4; and (*c*) those with more than one spot, *i. e.* with any number from 2 to 7, and of these the specimens with five or six spots are perhaps the most numerous. Such a grouping, however, would be purely artificial and would answer no useful purpose.

Though at first sight it might seem that we have united several forms more distinct *inter se* than others which we have previously treated as good species, yet a careful study of no less than 35 males and 26 females from all parts of India and the Malay Islands, representing all the named forms, together with the fact that the genitalia of all the specimens examined seem to be identical in structure, convinces us that it is impossible to separate them. The principal points which have been relied on by authors are the number of the spots beyond the band on fore wing above, the form of the band, and whether or not it is extended to the costa below.

P. albifascia, Moore, is a small form from Java, Borneo, and Bali, with a narrow band and usually no spots beyond the band.

P. volux, Mab., of which we have seen the type in Dr. Staudinger's collection, is also spotless.

Mr. Leech, who has given much attention to these insects, divides the specimens found in the region treated of in his book as follows:—

Pale band on fore wing below continued to the costa by a pale patch . . . . *feisthameli*, Bdv.
Pale band not so continued.
Fore wing below with a white dash in each of cells 9 and 10 between the hyaline spot in cell 8 and the costa . . . . . *curvifascia*, Feld.
Fore wing with no such dashes . . . . . *restricta*, Moore.

In this connection I may say that I have specimens from Java which combine the characters relied on by Mr. Leech for the separation of *feisthameli* and *curvifascia*.

Hab. India, generally distributed. Burmah, Perak, Andamans, Bali (*Doherty*); Java (*Piepers*); Nias (*Modigliani*); Philippines (*Semper*); Borneo, Arjuno, Java (*Doherty*); China (*Leech*); Liu Kiu Islands (*Pryer*).

! Notocrypta quadrata, n. sp. (Plate XX. fig. 3, ♂.)

♂. Nearest to *N. feisthamelii*, from which it differs in the general direction of the termen of the fore wing, which forms approximately a right angle with the dorsum, and in having the white band, which is cut short by vein 1 *a* and the upper edge of the cell, broader and more regular in outline; there are usually no hyaline spots, except those forming the band, but this is not a feature of much importance, as one specimen has a hyaline point near the middle of cell 4. On the underside the band is continued to the costa by an opaque white patch.

Expanse $36\frac{1}{2}$–$38\frac{1}{2}$ mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from two specimens in coll. Elwes received from Dr. Staudinger, who has others from the same locality.

! Notocrypta paralysos.

Plesioneura paralysos, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 257.
Notocrypta paralysos, Watson, Hesp. Ind. p. 127 (1891).

Though this species has the genitalia characteristic of *N. feisthamelii*, the pure white spots on the hind wing below, two in number, distinguish it with certainty.

Hab. Andamans (*de Roepstorff*).

! Notocrypta basiflava.

Plesioneura basiflava, de Nicéville, Jour. As. Soc. Beng. 1888, p. 290, pl. xiii. fig. 7, ♂.
Notocrypta basiflava, Watson, Hesp. Ind. p. 130 (1891).

Hab. Nilgiris (*Hampson*).

Notocrypta inornata, n. sp. (Plate XXI. fig. 15, ♂.)

♂. Upperside dark brown: fore wing with a large oblong cell-spot, notched on its outer edge, and a large irregular oblong spot occupying about the middle third of cell 2 pure white, and forming together an oblique abbreviated discal band; a white point near the basal third of cell 3. Underside of fore wing as the upperside, save that the outer half of cell 1 *a* is almost entirely occupied by the white subtornal blotch. Body, antennæ, and legs concolorous with the wings; club of the antennæ whitish beneath. Second joint of palpi clothed with black and grey hairs intermixed.

Expanse 41 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from a single example in coll. Staudinger.

Notocrypta monteithi.

Plesioneura monteithi, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 391, pl. xviii. figs. 3, 3 *a*, ♀.
Notocrypta monteithi, Watson, Hesp. Ind. p. 129 (1891).
Carystus singularis, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 51 (1893).

This species differs from any form of *N. feisthamelii* in having on the fore wing a triangular spot, which occupies the basal third of cell 3, included in the white band. Very few specimens are known, all females.

Hab. Irangmara, Cachar (*Wood-Mason & de Nicéville*); Sumatra (*fide de Nicéville*); Java (*fide Mabille*); N. Borneo (*Pryer, in coll. Rothschild*). *Cf.* p. 215 *ante*.

Œrane, gen. nov.

Antennæ two-thirds the length of the costa; club slender; apiculus about one-fourth as long as the club. Palpi laxly scaled, second joint ascending, third long, acicular, erect. Fore wing (male): costa one-third longer than the dorsum; termen straight from the tornus to vein 5, subequal in length to the dorsum, vein 5 with its basal portion receding from vein 6 and therefore arising evidently nearer to vein 4 than to vein 6. Species blackish brown above, with an oblique white abbreviated discal band between vein 2 and the upper edge of the cell. Hind tibiæ with two pairs of spurs.

This genus contains at present the two species mentioned below, and as both of them exhibit the characters given above it cannot be said that one is more typical than the other.

They may be thus distinguished *inter se* :—

Subtornal blotch on fore wing below pale brown. Fore wing (male) apparently narrower, by reason that the angle between the dorsum and the straight part of the termen is about 115° . . . . . *neæra*, de Nicév.

Subtornal blotch on fore wing below white, almost as pure as the discal band. Fore wing (male) apparently broader, by reason that the angle between the dorsum and the straight part of the termen is about 100° . . . . . *microthyrus*, Mab.

! Œrane neæra.

Notocrypta neæra, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 379, pl. G. fig. 27, ♀.

Hab. Pulo Laut, Perak (*Doherty*); Kina Balu, Borneo (*Waterstradt*).

There is a specimen in the Hewitson collection from Singapore unnamed.

Œrane microthyrus.

Plesioneura microthyrus, Mabille, Comptes Rendus Soc. Ent. Belg. iii. no. 31, p. lvii (1883).

Plesioneura mindorana, Staudinger, *in litt.*

Notocrypta microthyrus, Semper, Schmett. Philipp. p. 317 (1892).

Hab. Luzon, E. Mindanao (*Semper*); Mindoro (*coll. Staudinger*).

Herr Semper was mistaken in his statement that he had not the female of this species, the specimen submitted to us is undoubtedly of that sex.

In this species the pale band on the fore wing below is continued to the costa, and there is a tendency to the acquisition of this character in some females of *Œ. neæra*.

Udaspes.

Udaspes, Moore, Lep. Cey. i. p. 177 (1881); Watson, P. Z. S. 1893, p. 113. Type *folus*, Cr.

Antennæ about half as long as costa; club gradual; apiculus acute, about two-thirds as long as the club. Palpi porrect; third joint short, almost concealed. Fore wing: dorsum longer than the termen, the latter nearly evenly curved; vein 5 with its basal portion receding from vein 6 and therefore arising much nearer 4 than 6; vein 2 arising before the half-length of the cell. Hind wing nearly as broad as long; termen evenly rounded; cell less than half as long as the wing. Hyaline spots present in both wings. Tibial epiphysis present; hind tibiæ fringed and bearing two pairs of spurs. No alar sex-mark in the male.

The two species known to us may be distinguished as follows:—

Disc of the hind wing above white, completely surrounded by a broad dark brown border. Expanse about 42 mm. . . . . *folus*, Cr.

Hind wing above fuliginous brown, with a sharply defined rhomboidal white spot on the disc standing on vein 5 near the middle, and a white point just below it near the basal third of cell 3. Expanse about 33 mm. . . . . *stellata*, Ob.

! Udaspes folus.

Papilio folus, Cramer, Pap. Exot. i. pl. lxxiv. fig. 7 (1779).

Udaspes folus, Moore, Lep. Cey. i. p. 177, pl. lxviii. figs. 3, 3 *a* (1881); Distant, Rhop. Mal. p. 398, pl. xxxiv. fig. 3 (1886); Watson, Hesp. Ind. p. 125 (1891).

Hab. N.W. Himalaya (*Young*); Sikkim (*Möller*); Khasia (*Elwes*); Burmah (*Watson*, *Doherty*); Java (*Piepers*); Sambawa, Bali (*Doherty*).

! Udaspes stellata.

Plesioneura stellata, Oberthür, Études d'Ent. xx. p. 41, pl. ix. fig. 165 (1896).

Hab. Mænia, ? prope Ta-tsien-lo, E. Tibet (*coll. Oberthür*).

I am indebted to M. Charles Oberthür for a specimen of this distinct species, which he has recently received from his native collectors in Tibet.

Actinor.

Actinor, Watson, P. Z. S. 1893, p. 108. Type *radians*, Moore.

This genus was erected by Watson for the *Halpe radians* of Moore, an insect combining with its own peculiar facies most of the other characters of *Halpe*, save that the sex-mark is absent in the male and vein 2 of the fore wing arises near the basal third of the cell.

The pattern of the hind wing below is quite peculiar; the veins and two narrow irregular straight transverse bands are yellowish white, the antemedian band starts from the basal third of vein 1 *b* and passes over the base of vein 2 obliquely across the cell

and is cut short by vein 8, the postmedian band starts from the apical fourth of vein 1 *b* and is continued in an almost regular zigzag to the apex of vein 6; there is a pale spot near the base of cell 7.

! Actinor radians.

Halpe radians, Moore, P. Z. S. 1878, p. 690, pl. xlv. fig. 1; Watson, Hesp. Ind. p. 74 (1891).

Hab. Mandi, N.W. Himalayas (*Young*).

Gehenna.

Gehenna, Watson, P. Z. S. 1893, p. 108. Type *abima*, Hew.

Distinguished from *Halpe* by the secondary sexual characters on the underside of the fore wing in the male, which consist of a thickening of the basal part of vein 2 and a portion of the lower edge of the cell near it, so as to form a swollen <, which is partly covered by a thick tuft of long black hairs springing from the dorsum near the base.

Three species are known to us, and may be distinguished as follows:—

1 (4). Male. Hind wing: vein 8 and the upper edge of the cell normal.
2 (3). Cell-spot on the fore wing geminate; hind wing below with "five undefined brown spots" (*de Nicév.*) . . . . . *abima*, Hew.
3 (2). One moderately large spot next the lower edge of the cell on the fore wing, sometimes with another punctiform one just above it. Hind wing below brown, more or less closely covered with greyish-yellow scales, except on a large spot near the end of the cell and a triangular postmedian spot; the base of this brown triangle occupies about the basal half of vein 2, and its apex just reaches vein 6 . . . . . *angulifera*, n. sp.
4 (1). Male. Hind wing: vein 8 and the upper edge of the cell forming a "tuning-fork" at their junction; upperside with a small oval oblique streak close to the base; underside dark reddish brown, immaculate, "frosted over with scattered golden-yellow scales" . . . . . *græa*, de Nicév.

Gehenna abima.

Hesperia abima, Hew. Ann. & Mag. Nat. Hist. (4) xix. p. 83 (1877).

Hab. Macassar (*fide Hewitson*).

Gehenna angulifera, n. sp. (Plate XIX. fig. 20, ♂.)

♂. Upperside brown: fore wing with four or five sordid yellowish-white spots placed as follows:—one near the apex of the lower edge of the cell, sometimes with a punctiform one just above it, one about twice as high as wide in cell 2, one roundish or subquadrate near the basal third of cell 3, and one small and roundish in cell 6. Underside: fore wing as on the upperside, but paler along the dorsum, and with the

extra-discal portion more or less closely sprinkled with greyish-yellow scales: hind wing brown, more or less closely sprinkled with greyish-yellow scales, except on a spot near the end of the cell, and a curved postmedian band, the base of which occupies about the basal half of vein 2, and its apex just reaches vein 6. Fringes dark grey, the short scales darker, especially on the hind wing. Antennæ above dark brown, very finely spotted with white beneath, apiculus pale red on the underside. Body above brown; clothing of the palpi, breast, and legs of yellow and black hairs intermixed; abdomen beneath blackish, hind margins of the segments with a narrow band of whitish-grey scales.

Expanse 28 mm.

Hab. Mindoro.

Described from two specimens ex coll. Staudinger.

According to a specimen received from M. Mabille, this is the same as his *Pamphila rama*; we have not, however, been able to find any reference to the publication of the latter name.

GEHENNA GRÆÆ.

Gehenna grææ, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 399.

Hab. N.E. Sumatra (*fide de Nicéville*).

CUPITHA, Moore.

Cupitha, Moore, Jour. As. Soc. Beng. 1884, pt. ii. p. 47; Watson, P. Z. S. 1893, p. 111. Type *purreea*, Moore.

A genus of a single species, best distinguished by the secondary sexual characters of the male. The pattern of the upperside is essentially the same as that found in *Telicota gola*, Moore. Male: fore wing with the dorsum angularly produced just before the middle, on the underside with a tuft of long hairs on the dorsum between the base and the angulation; hind wing above with an oval depression at the end of the cell filled with what appears to be a waxy matter, the middle of this depression is traversed by the confluent basal portion of veins 3 and 4, which thus form a loop above the lower margin of the cell.

! CUPITHA PURREEA.

Pamphila purreea, Moore, P. Z. S. 1877, p. 594, pl. lviii. fig. 10.
Cupitha tympanifera, Moore, Jour. As. Soc. Beng. 1884, p. 48.
Pamphila lycorias, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 54 (1893).

Hab. Sikkim (*Möller*); E. Pegu, Bali (*Doherty*); Java (*Fruhstorfer*); Nias (*Modigliani*); Camiguin de Mindanao (*Semper*); Palawan (*coll. Staudinger*).

Augiades.

Augiades, Hübn. Verz. p. 112 (1816); Watsou, P. Z. S. 1893, p. 103. Type *sylvanus*, Esper.

Closely allied to *Erynnis*, the points of difference being practically those which separate the *Papilio sylvanus* of Esper from the *Papilio comma* of Linnæus. In *Augiades siva*, Moore, and its immediate allies, hyaline spots are more or less strongly developed in the fore wing.

Antennæ rather more than half as long as costa; club elongate, oval: apiculus longer than in *Erynnis*, in most species as long as the greatest width of the club. Third joint of palpi almost concealed, second joint laxly scaled.

In seven species examined there occurs a marked peculiarity in the male genitalia; the œdeagus has growing out of its lower side one or two large dissimilar horns, variously shaped and armed, sometimes nearly as large as the organ itself.

The species in coll. Elwes are distinguished as follows:—

1 (10). Hind wing below with the veins concolorous.

2 (3). Fore wing below with the blackish colour confined to the base and dorsum, bounded externally by the sex-mark, and above by vein 1 *a* . . . . . *sylvanus*, Esp.

3 (2). Fore wing below with the dorsal half occupied by a suffused blackish patch, which is bounded above by the lower margin of the cell and vein 3.

4 (7). Hind wing above with pale spots in cells 2–6.

5 (6). Size larger. Fore wing below with a pale suffused spot near the middle of the dorsum. Œdeagus with one horn . . . . . *subhyalina*, Brem.

6 (5). Size smaller. Fore wing below without a pale spot near the middle of the dorsum. Œdeagus with two horns . . . . . *sylvanoides*, Leech.

7 (4). Hind wing above with pale spots in cells 2, 3, and 6.

8 (9). Sex-mark black. Fore wing below with the basal half of the costal region nearly concolorous with the ground-colour of the hind wing. Hind wing below with the pale spots silvery white, dark-edged . *siva*, Moore.

9 (8). Middle streak of the sex-mark whitish. Fore wing below with the basal half of the costal region reddish ochreous. Hind wing below with the pale spots neither silvery white nor dark-edged.

9*a* (9*b*). Expanse 33–35 mm. Lower distal angle of the lower lobe of the clasp acute . . . . . *brahma*, Moore.

9*b* (9*a*). Expanse 43–47 mm. Lower distal angle of the lower lobe of the clasp obtuse . . . . . *crateis*, Leech.

10 (1). Hind wing below with the veins black.

11 (12). Size smaller. Fore wing less pointed, its underside with the fringe deep yellow, the short scales dark brown for a varying distance from the apex. Œdeagus with one horn . . . . . *ochracea*, Brem.

12 (11). Size larger. Fore wing more pointed, its underside with the fringe yellowish grey, passing into yellow near the tornus. Œdeagus with two horns . . . . . *majuscula*, n. sp.

! Augiades sylvanus.

Papilio sylvanus, Esper, Schmett. i. 1, pl. xxxvi. fig. 1 (1778?); Hübner, Eur. Schmett. i. figs. 482–484 (1798–1803).
Hesperia venata, Bremer & Grey, Schmett. N. China's, p. 11, pl. iii. fig. 5 (1853); Ménétriés, Cat. Mus. Petr., Lep. i. pl. v. fig. 8 (1855).
Pamphila selas, Mabille, Pet. Nouv. ii. p. 233 (1878).
Pamphila herculea, Butler, Ann. & Mag. Nat. Hist. (5) vii. p. 140 (1881).
Hesperia hyrcana, Christoph, Iris, vi. p. 87 (1893).
Augiades sylvanus, Leech, Butt. China &c. p. 601 (1894).

Hab. Europe to Amurland, Korea (*Leech*); Japan (*Pryer*).

A male and female in coll. Rothschild, from Koko-nor, Tibet, expand only 23 mm. and 25 mm. respectively. We have not had an opportunity of comparing the male genitalia of this small form with those of specimens of normal size.

! Augiades subhyalina. (Plate XXIV. fig. 58.)

Hesperia subhyalina, Bremer & Grey, Schmett. N. China's, p. 10, pl. iii. fig. 4 (1853).
Pamphila subhyalina, Ménétriés, Cat. Mus. Petr., Lep. i. pl. v. fig. 7 (1855).
Augiades subhyalina, Leech, Butt. China &c. p. 602, pl. xli. fig. 8, ♂ (1893–94).
Pamphila subhyalina, var. *tibetana*, Oberthür, Études d'Ent. xi. p. 28, pl. vi. fig. 45 (1886).

Hab. China (*Pratt*); Korea (*Leech*); ? Japan (*fide Leech*); Khasias (*Hamilton, fide Doncaster*).

Leech states that he has specimens intermediate between *A. tibetana* and *subhyalina*. We have seen no specimens from Japan, but three males from the Khasia hills, procured from Mr. Doncaster, are undoubtedly *subhyalina*.

! Augiades sylvanoides. (Plate XXIV. fig. 59.)

Augiades sylvanoides, Leech, Butt. China &c. p. 604, pl. xli. fig. 4, ♂ (1893–94).

Hab. Ta-tsien-lo, Western China (*Pratt*).

Augiades similis.

Augiades similis, Leech, Butt. China &c. p. 605, pl. xli. fig. 6, ♂ (1893–94).

Differs from *sylvanoides*, Leech, in the darker (brown, not yellowish-green) ground-colour and more distinct pale spots of the hind wing below.

Hab. W. China (*Leech*).

! Augiades siva. (Plate XIX. fig. 28, ♂.)

Pamphila siva, Moore, P. Z. S. 1878, p. 692.
Telicota siva, Watson, Hesp. Ind. p. 57.

Hab. Khasias, 6000 ft. (*Elwes*); E. Pegu, Bernardmyo (*Doherty*).

AUGIADES BOUDDHA.

Pamphila bouddha, Mabille, Ann. Soc. Ent. Fr. 1876, p. lvi.
Augiades bouddha, Leech, Butt. China &c. p. 603, pl. xli. figs. 7 ♀, 14 ♂ (1893–94).

Closely resembles *A. siva*, Moore, but the spots on the hind wing are larger and more quadrate.

Hab. Moupin (*David*).

! AUGIADES BOUDDHA, var. CONSORS.

Augiades bouddha, var. *consors*, Leech, t. c. p. 604, pl. xli. fig. 10, ♀.

We believe that this insect, which comes from Moupin, is really the female of *A. bouddha*, and that the female specimen from Omei-shan, figured on Leech's plate xli. fig. 7, belongs to another species. Mr. Leech himself observes that the Moupin female, the original of his plate xli. fig. 10, agrees better in the colour of the spots on the hind wing with the type male of *bouddha* figured by him than the Omei-shan female, the original of his plate xli. fig. 7; at the same time, the latter, which has the spots on the hind wing bright fulvous instead of white, agrees very well with Mabille's description of *bouddha*, female. The specimens figured appear to be the only ones which Mr. Leech had seen, and we have seen no others.

! AUGIADES BRAHMA. (Plate XXV. fig. 61 *b*.)

Pamphila brahma, Moore, P. Z. S. 1878, p. 691, pl. xlv. fig. 8.
Telicota brahma, Watson, Hesp. Ind. p. 57.

Hab. Masuri, N.W. Himalayas (*Lang*); Kumaon (*Ramsay*); Fort White, Chin hills, 7000 ft. (*fide de Nicéville*).

The differences between *A. siva* and *brahma*, as given in the table, are well marked and constant; therefore the occurrence of the latter species in the Chin hills, where *A. siva* would be expected, is very curious.

! AUGIADES CRATEIS. (Plate XXV. fig. 61 *a*.)

Augiades crateis, Leech, Butt. China &c. p. 603, pl. xli. figs. 9 ♀, 11 ♂ (1893–94).

Differs from *A. brahma*, Moore, in being larger, darker, and more strongly marked, especially on the hind wing below, and in the male genitalia; both have the whitish line on the black sex-mark in the male.

Hab. Omei-shan, Chia-kou-ho (*Leech*).

! AUGIADES OCHRACEA. (Plate XXIV. fig. 60.)

Pamphila ochracea, Bremer, Bull. Acad. Pet. iii. p. 473 (1861); id. Lep. Ost-Sib. p. 33, pl. i. fig. 11 (1864).
Pamphila rickuchina, Butl. Cist. Ent. ii. p. 275 (1878).
Augiades ochracea, Leech, Butt. China &c. p. 605 (1893–94).

Hab. Japan (*Pryer*); Amurland (*Graeser*).

! Augiades majuscula, n. sp. (Plate XIX. fig. 21, ♂; Plate XXV. fig. 61.)

Resembles *A. ochracea* generally, and particularly in the black veining of the hind wing below, but is larger (exp. 41 mm.), and the fore wing has a much straighter termen, and therefore a more pointed appearance. The form of the œdeagus is quite distinct from that of *A. ochracea*, but is not to be distinguished from that of *A. sylvanus*.

Described from two males from China (*Pryer, in coll. Elwes*).

We should not have ventured to separate this species from *ochracea* if it had not been for the marked difference in the œdeagi, which are figured. Elwes obtained the types from a collection made many years ago by the late Mr. Pryer in China, mostly at Shanghai. He found specimens in Mr. Leech's collection marked *herculea*, Butl., which appear to be the same species.

Telicota.

Telicota, Moore, Lep. Cey. i. p. 169 (1881); Watson, P. Z. S. 1893, p. 102. Type *augias*, Lin.
Padraona, Moore, t. c. p. 170; Watson, t. c. p. 101. Type *mæsa*, Moore, = *dara*, Koll.

Under this generic name we bring together a number of species which agree well in general appearance and in all important points of structure. Antennæ more than half as long as costa; club gradual, of moderate size; apiculus as long as, or a little longer than the greatest width of the club. Palpi: second joint densely scaled, third joint short, conical, erecto-patent; or second joint laxly scaled, third joint acicular, sub-erect, sometimes almost as long as one-third of the diameter of the eye. Wings without hyaline spots. Basal portion of vein 5 in the fore wing receding from vein 6, vein 5 therefore arising much nearer to vein 4 than to vein 6; vein 5 in the hind wing obsolete. Upperside dark brown or black, with a yellow (fulvous or stramineous) band on each wing; that on the fore wing starts from the middle of the dorsum and runs obliquely outwards to join some pale spots in cells 6–8, it is sometimes broken into spots, and there is also sometimes a pale spot or spots in the cell, or an elongate triangular pale spot next the costa from the base to beyond the middle; the band on the hind wing is submedian, and does not reach the costa or the dorsum, but is in nearly all the species reproduced, outlined in black, on the underside. Tibial epiphysis present; hind tibiæ fringed with long hairs, and having two pairs of spurs.

The species known to us we arrange as follows:—

1 (16). Hind wing: termen distinctly excavate between veins 1 *b* and 2 or 1 *b* and 3, the tornus therefore apparently shortly produced into a rounded lobe.
2 (11). Male with an alar sex-mark.
3 (6). Sex-mark on the fore wing: a streak of androconia reaching from the middle of vein 2 to the base of vein 4. (Telicota proper.)

4 (5). Fore wing above: lower outer angle of the yellow spots in cells 2–4 narrowly produced along the contiguous vein nearly or quite to the termen; terminal dark band brown. Lower apical angle of clasp rounded off, or at most barely evident . . . . . *augias*, Linn.

5 (4). Fore wing above: lower outer angle of the yellow spots in cells 2–4 not, or but little, produced; terminal dark band black-brown. Lower apical angle of clasp produced into a triangular tooth, or, at least, strongly right-angled . . . . . *bambusæ*, Moore.

6 (3). Sex-mark on the hind wing: a tuft of long hairs springing from an otherwise bare pale patch near the middle of cell 7 and the base of cell 6, and directed obliquely inwards and downwards.

7 (8). Fore wing above: no yellow spot in cell 5. Fore wing below brown, the pale band distinct . . . . . *prusias*, Feld.

8 (7). Fore wing above with a suffused yellow spot near the middle of cell 5.

9 (10). Hind wing above bright fulvous as far as vein 7, thence to the costa warm dark brown . . . . . *insularis*, n. sp.

10 (9). Hind wing above brown, with a broad postmedian yellow band, which nearly reaches the termen and is cut short by vein 6 . . *kuehni*, Plötz.

11 (2). Male without an alar sex-mark.

12 (15). Hind wing below with an irregular pale postmedian macular band outlined with black.

13 (14). Expanse of the male about 40 mm. Yellow band on fore wing narrower; pale spot in cell 2 of fore wing above not reaching the base of that cell; fore wing below with the basal part of the cell blackish. Apex of the tegumen tridentate . . . . *palmarum*, Moore.

14 (13). Expanse of the male about 44 mm. Yellow band on fore wing above broader, basal two-thirds of cell 2 on the fore wing above entirely yellow. Fore wing below with the cell entirely yellow. Apex of tegumen bidentate . . . . . *augiades*, Feld.

15 (12). Hind wing below without distinct markings, ochreous brown passing into ochreous on the terminal half . . . . . *simplex*, n. sp.

16 (1). Hind wing: termen practically straight (not excavate) between veins 1 *b* and 2 or 1 *b* and 3; tornus not produced.

17 (22). Fore wing above: cell 3 yellow at the extreme base and for about half its length.

18 (21). Pale discal marking on hind wing below band-like.

19 (20). Size larger. Cell of fore wing entirely black . . . . . *concinna*, n. sp.

20 (19). Size smaller. Cell of fore wing with a yellow spot near the apex. *gola*, Moore.

21 (18). Pale discal marking on hind wing below subovate . . . . . *paragola*, de Nicév.

22 (17). Fore wing above: cell 3 black at the extreme base.

23 (28). With a pale spot in each of cells 4 and 5 of the fore wing.

24 (29). Pale markings of the upperside deep yellow, sometimes inclining to fulvous.

25 (26). Male with a sex-mark on the fore wing above. Fore wing above: pale band regular, its inner edge straight. Sex-mark consisting of a dull streak of androconia along the inner edge of the yellow band from the middle of vein 1 *a* to the base of vein 4 . . . *rectifasciata*, n. sp.

26 (25). No sex-mark on the fore wing above in the male; the pale band irregular, broken outwardly at cells 4–5 . . . . . *dara*, Koll.

27 (24). Pale markings of the upperside cream-yellow . . . . . *dilutior*, n. sp.

28 (23). No pale spot in cells 4 and 5 of the fore wing . . . . . *orphitus*, Mab.

! Telicota augias. (Plate XXV. figs. 62, 62 *a*.)

Papilio augias, Linn. Syst. Nat. i. p. 794 (1767).

Telicota augias, Distant, Rhop. Mal. p. 382, pl. xxxiv. fig. 23 (1886); Watson, Hesp. Ind. p. 55 (1891).

The sex-mark in the male is subject to some variation; generally it is broad and continuous, sometimes it is broken up into three pieces, and in a specimen from Menado it is continuous but only about half as wide as usual and its black edging is very narrow and regular.

Hab. Calcutta (*Minchin*); Akyab (*Adamson*); Poona (*Swinhoe*); Andamans, Perak, Pulo Laut, Sambawa (*Doherty*); Nias (*Modigliani*); Java (*Fruhstorfer*); Philippines (*Semper*); Hong-Kong (*Walker*).

! Telicota bambusæ. (Plate XXV. fig 63.)

Pamphila bambusæ, Moore, P. Z. S. 1878, p. 691, pl. xlv. figs. 11, 12 ♂ ♀.

Pamphila pythias, Mabille, Pet. Nouv. ii. p. 234 (1878); id. Ann. Soc. Ent. Belg. xxi. p. (1878).

Telicota bambusæ, Distant, Rhop. Mal. p. 382, pl. xxxv. fig. 12 (1886); Watson, Hesp. Ind. p. 56 (1891).

Pamphila eurotas, Felder [Sitz. Ak. Wiss., Math.-nat. Cl. xl. p. 461, *sep.* p. 14 (1860)], is, judging from a male specimen in the Felder Collection labelled in contemporary handwriting "*Hesp. eurotas*, Feld.," "Amboina," mainly distinguished from *T. bambusæ* by having the postmedian yellow band on the fore wing above only half as wide, narrowed towards the apex and only reaching just beyond vein 5.

Hab. Nilgiris (*Hampson*); Sikkim (*Möller*); Calcutta (*Minchin*); Assam, E. Pegu, Perak, Arjuno, Java, Bali (*Doherty*); Java (*Fruhstorfer*); Kina Balu (*Waterstradt*); Mt. Mulu, N. Borneo (*Hose*).

! Telicota prusias. (Plate XIX. fig. 14, ♂.)

Pamphila prusias, Felder, Sitz. Ak. Wiss., Math.-nat. Cl. xliii. p. 44 (1861).

In a female of this species sent by Semper the underside exactly agrees with that of the male, but is a little paler, thus differing from a specimen sent by Staudinger as the female of *T. prusias*, in which the hind wing below bears a sharply defined postmedian macular pale band between veins 1 *b* and 6.

Hab. Celebes (*coll. Stgr.*); Palawan (*Platen*, *Everett*); Philippines (*Semper*).

! Telicota insularis, n. sp. (Plate XIX. figs. 26 ♂, 27 ♀.)

♂. Upperside: fore wing blackish brown; a broad fulvous postmedian band from the dorsum nearly parallel with the termen as far as the end of the cell, recurved from thence to the costa, a streak along the basal half of the costa and two streaks in the cell, the upper one occupying its entire length, the lower one only half as long, also fulvous: hind wing fulvous, the costal region as far as vein 6 and a little beyond that vein on the inner two-thirds of the wing black; a suffused anteciliary black line in cells 5–2, expanding in cell 1 *b* into a suffused spot; cells 1 and 1 *a* blackish; a tuft of long hairs springing from an otherwise bare pale patch near the middle of cell 7 and the base of cell 6 and directed obliquely inwards and downwards. Underside: fore wing yellowish red-brown, passing into yellow on the dorsum; basal half as far upwards as the cell black, the black portion bearing an oblong bare pale spot from the dorsum as far as the base of vein 2; a fine anteciliary line and the veins blackish; fringe deep yellow, the short scales blackish grey from the apex as far as vein 1 *a*: hind wing yellowish red-brown, brownish yellow from vein 2 to the dorsum, a fine anteciliary black line from the apex to vein 2; fringe deep yellow. Palpi clothed with yellow scales intermixed with black. Clothing of body above fulvous. Antennæ blackish, club pale beneath.

♀. Upperside: fore wing yellow-brown, pale markings as in the male but yellow rather than fulvous and the postmedian band narrower: hind wing yellow-brown, with a broad suffused median yellow band passing from the apex of cells 4–5 towards the dorsum; basal region clothed with long yellow hairs. Underside: fore wing as in the male, but the dark basal portion is blackish only and bears no pale patch, the dorsum as far as vein 1 *a* dusky; hind wing as in the male, but less strongly tinged with red.

A very distinct species, which comes nearest to *T. prusias*.

Expanse 42 mm.

Hab. Pulo Laut (*Doherty*). Types in coll. Elwes.

Telicota kuehni.

Hesperia kuehni, Plötz, Stett. ent. Zeit. xlvii. p. 101 (1886).
Padraona kuehni, Semper, Schmett. Philipp. p. 302 (1892).

Hab. Luzon (*Semper*); E. Celebes (*in coll. Godman & Salvin*).

! Telicota palmarum. (Plate XXV. figs. 64, 64 *a*.)

Pamphila palmarum, Moore, P. Z. S. 1878, p. 690, pl. xlv. figs. 6, 7, ♂ ♀.
Hesperia chrysozona, Plötz, Stett. ent. Zeit. xliv. p. 228 (1883).
Pamphila augiades, var. *bambusæ*, Staudinger, Iris, ii. pp. 144, 165 (1889).
Padraona palmarum, Watson. Hesp. Ind. p. 60 (1891).
Padraona chrysozona, Semper, Schmett. Philipp. p. 301, pl. xlix. figs. 13 ♂, 14 ♀, pl. B. fig. 11, larva (as *Telicota bambusæ*) (1892).

Hab. Calcutta (*de Nicéville*); Upper Assam (*Doherty*); Khasias (*Hamilton*); Java (*Piepers*); Luzon, Mindoro, Negros, Bohol, Mindanao (*Semper*); Palawan, Bunguran, Natuna Is. (*Everett*); Bukan, N. Borneo (*in coll. Rothschild*).

! Telicota augiades. (Plate XXV. figs. 65, 65 *a*.)

Pamphila augiades, Felder, Sitzb. Ak. Wiss., Math.-nat. Cl. xl. p. 461 (1860).
Hesperia augiades, Felder, Reise Nov., Lep. iii. pl. lxxii. fig. 5 (1867).
♀ = *Hesperia acalle*, Hopf. Stett. ent. Zeit. 1874, p. 41.

Hab. Amboyna (*Felder*); Batavia (*ex coll. Snellen*). We are unable to give any characters by which the females of *T. palmarum* and *T. augiades* can be distinguished.

Telicota simplex, n. sp. (Plate XIX. fig. 15, ♂.)

♂. Upperside resembling that of *T. insularis*, save that the yellow streaks next the costa of the fore wing are less strongly developed, and in this respect it resembles *T. prusias*; no sexual tuft of hairs near the base of the costa of the hind wing. Fore wing below resembling that of *T. insularis*, but wanting the pale denuded patch near the middle of cell 1 *a*, which is correlated with the tuft of hairs on the upperside of the hind wing. Hind wing below ochreous brown, passing into ochreous near the middle.

Expanse 40 mm.

Hab. N. Celebes (*coll. Stgr.*). Type in coll. Staudinger.

Described from a single specimen from Minahassa sent by Staudinger as *kuehni*, Plötz. The latter species, however, according to a specimen received under that name from Semper, has in the male a sex-mark as in *prusias* and *insularis*, and the yellow colouring on the hind wing above is in the form of a distinct band, as stated in the original description.

! Telicota concinna, n. sp. (Plate XXI. fig. 20, ♂; Plate XXV. figs. 67, *a*, *b*.)

♂. Differs from *gola*, Moore, in its larger size and the want of any yellow spot in the cell of the fore wing. Tegumen in the lateral aspect regularly decurved. In *gola* the tegumen in the lateral aspect is sinuate.

Expanse 28 mm.

Hab. Nilgiris (*Davison*, *Hampson*).

Described from two specimens in coll. Elwes.

! Telicota gola. (Plate XXV. figs. 66, *a*, *b*.)

Padraona gola, Moore, P. Z. S. 1877, pl. lviii. fig. 9, ♂; Leech, Butt. China, &c. p. 598, pl. x fig. 12, ♂ (1892–94); Watson, Hesp. Ind. p. 59 (1891).
Padraona goloides, Moore, Lep. Cey. i. p. 171, pl. lxxi. figs. 3, 3 *a* (1880–81); Watson, Hesp. Ind. p. 601 (1891).
Telicota goloides, Distant, Rhop. Mal. p. 382, pl. xxxv. fig. 13, ♂ (1886).

Pamphila akar, Mabille, Comptes Rendus Soc. Ent. Belg. iii. no. 31, pl. lxxi. (1883).
Pamphila goloides, var. *akar*, Staudinger, Iris, ii. p. 146 (1889).
Padraona akar, Semper, Schmett. Philipp. p. 303, pl. xlix.-fig. 16, ♂ (1892).

Hab. Nilgiris (*Hampson*); Ceylon (*Green*); Khasias (*Hamilton*); Andamans, Perak, Java, Bali, Sambawa, Pulo Laut (*Doherty*); Luzon, Guimaras, Camotes, Mindanao (*Semper*); Palawan, Kina Balu, Borneo (*Staudinger*); Nias (*Modigliani*).

Telicota paragola.

Padraona paragola, de Nicéville, Jour. As. Soc. Beng. 1895, p. 546.

Hab. N.E. Sumatra (*de Nicéville & Martin*); W. Borneo (*ex coll. Staudinger*).

Size of *T. gola*, but very distinct on the hind wing below, which is dark yellow-brow by reason of a sprinkling of yellow scales on a blackish ground and has a sharply defined subovate yellow discal patch.

We know this species only from a specimen sent by Staudinger which agrees with de Nicéville's description.

! Telicota rectifasciata, n. sp. (Plate XXI. fig. 17, ♂ ; Plate XXV. figs. 68, 68 *a*.)

♂. Differs from *dara*, Koll., in the following points:—Fore wing above: inner edge of the oblique pale band straight, bounded inwardly by a broad stripe of dull brown modified scales reaching from near the middle of vein 1 *a* to the base of vein 4; in *dara*, Koll., the inner edge of the pale band is irregular because the bases of the spots in cells 2 and 3 project inwardly out of line with the bases of the others forming the band.

Expanse 28–31 mm.

Described from three male specimens, one from Sikkim (*Möller*) and two from East Pegu (*Doherty*). We have not yet been able to identify the female of this species.

! Telicota dara. (Plate XXV. figs. 69, 69 *a*.)

Hesperia dara, Kollar, Hügel's Kaschmir, vol. iv. p. 455 (1848).
Pamphila mæsa, Moore, P. Z. S. 1865, p. 509, pl. xxv. fig. 9.
Pamphila flava, Murray, Ent. Mo. Mag. xii. p. 4 (1875).
Pamphila nitida, Mabille, Pet. Nouv. ii. p. 114 (1877).
Pamphila taxilus, Mabille, Ann. Soc. Ent. Belg. xxi. p. (1878).
Pamphila trachala, Mabille, Pet. Nouv. ii. p. 237 (1878).
Pamphila mæsoides, Butler, Trans. Linn. Soc. Lond. ser. 2, Zool. vol. i. p. 554 (1879).
Padraona mæsoides, Moore, Lep. Cey. i. p. 171, pl. lxxi. figs. 5, 5 *a* (1881).
Telicota mæsoides, Distant, Rhop. Mal. p. 383, pl. xxxiv. fig. 24 (1886).
Padraona pseudomæsa, Moore, Lep. Cey. i. p. 170 (1881).
Padraona dara, Watson, Hesp. Ind. p. 57 (1891); Leech, Butt. China, &c. p. 596, pl. xl. figs. 13, 14, vars.
Pamphila hetærus, Mabille, Comptes Rendus Soc. Ent. Belg. iii. no. 31, p. lxxii (1883); Staudinger, Iris, ii. p. 145 (1889).
Padraona hetærus, Semper, Schmett. Philipp. p. 303, pl. xlix. fig. 15, ♀ (1892).

Pamphila zebra, Mabille, *sec. spec. comm.*

? *Pamphila sunias*, Felder, Sitzb. Ak. Wiss., Math.-nat. Cl. xl. p. 462, *sep.* p. 15 (1860).

This species varies much, in size, in the ground-colour of the hind wing below, and in the size of the spots which form the pale markings on the upperside. The pale spot in cell 6 on the hind wing below is absent or but feebly developed in certain males from Pulo Laut, Nias, Java, and Perak; in females from Pulo Laut and Nias, otherwise similar to the males last mentioned, this spot is present, but a female from Perak exactly resembles males from the same locality in wanting that spot.

This species seems to have a wider range and to be more generally abundant than any other Eastern Hesperid.

Elwes's collection contains forty-six males and thirty-six females from almost every part of tropical Asia, including Japan. Edwards has examined the genitalia of no less than fifteen specimens from various localities and finds considerable variation in degree, but no differences which can be treated as specific.

The five specimens now standing in the Felder collection as "*Pamphila sunias*" clearly do not belong to the species described by Felder under that name, for he says of the hind wing below "atomis nigris fasciam cingentibus." Of the specimens in question four are labelled "*Amboina*" and one, a male, "*Amboina, Doleschall.*" The latter agrees exactly with a specimen from Celebes sent by Dr. Staudinger as *Pamphila prusias*, Felder; the other three males are only distinguishable from the specimen last mentioned by the narrower pale band on the fore wing above (the pale spot in cell 2 reaches to about the half length of vein 2); the remaining specimen, a female, appears to be properly associated with the narrow-banded males, as the band on the fore wing above is not so wide as one would expect to find in the female of *T. prusias* having regard to the width of it in the male of that species.

Hab. N.W. Himalaya (*Young*); Sikkim (*Möller*, *Elwes*); Khasias (*Elwes*); Nagas, E. Pegu, Perak, Pulo Laut, Sambawa, Arjuno, Java, Bali (*Doherty*); Ceylon (*Mackwood*); Nias (*Modigliani*); Hong Kong (*Pryer*); Andamans (*de Roepstorff*); Java (*Piepers*); Philippines (*Semper*); Kina Balu (*Waterstradt*); Japan (*Pryer*); C. China (*Pratt*).

! Telicota dilutior, n. sp. (Plate XXI. fig. 21, ♂.)

♂ ♀. Differs from *dara*, Koll., in the following points:—Pale markings of the upperside of a cream- or straw-yellow, the spots of which they are composed reduced in size; ground-colour of the hind wing below dark yellowish green, owing to the sparse clothing of yellow scales on the black parts.

Expanse 30–31 mm.

This species seems constantly different from any form of *dara*.

Described from several specimens, including three males and three females, from Pulo Laut (*Doherty*). Types in coll. Elwes.

Hab. Pulo Laut, Labuan, Kina Balu, Borneo (*Waterstradt*); N. Borneo (*Everett*).

! Telicota orphitus.

Pamphila orphitus, Mabille, C. R. Ent. Belg. xxvii. p. lxxiv (1883).

Padraona pavor, de Nicéville, Jour. As. Soc. Beng. 1894, p. 53, pl. iv. fig. 8, ♂.

In the male of this species there are three tracts of androconia on the fore wing above, namely, a streak in cell 1 *a* next vein 1 *a* and occupying about the middle third of the latter, a roundish patch near the middle of vein 2 divided by that vein into two nearly equal parts, and a short streak in cell 2 next the base of vein 3.

Hab. N.E. Sumatra (*Martin*); Java (*fide Mabille*).

Telicota philænus.

Pamphila philænus, Mabille, C. R. Ent. Belg. xxvii. p. lxxiii (1883).

Somewhat smaller than *T. orphitus*, Mab., which it resembles on the upperside, save that there are yellow spots in cells 4 and 5 of the fore wing and a yellow spot in cell 6 of the hind wing, which is half as large as that in cells 4–5, of which it adjoins the outer half; the hind wing below is unmarked pale ochreous, and there is on vein 2 of the fore wing above near its middle an oblong patch of androconia bounded above and below by a slight folding of the wing-membrane.

Hab. Malaysia (*fide Mabille*).

Telicota marnas.

Pamphila marnas, Felder, Sitzb. Ak. Wiss., Math.-nat. Cl. xl. p. 462, *sep.* p. 15 (1860).

The following particulars are taken from a male specimen in the Felder collection labelled in contemporary handwriting "*Hesp. marnas*, Feld.", "Amboina, Doleschall":—

♂. Upperside: fore wing brown, with the basal half of the costa, a geminate cell-spot continued towards the base and having its upper part extended for about half its length beyond the lower part, a streak in cell 1 *a* adjoining vein 1 *a* as far as the sex-mark, a streak along the basal two-thirds of the dorsum, an oblique postmedian band from vein 1 *a* to vein 4, a subquadrate spot near the apical third of cell 4, a smaller spot near the apical fourth of cell 5, and an oblong spot in each of cells 6, 7, and 8, deep yellow or fulvous; sex-mark an irregular line of pale brown androconia running from vein 1 *a* near the middle to vein 4 near the base, and separated from the inner edge of the postmedian band by an irregular linear tract of brown; hind wing brown; a few scales and the pubescence near the base, a broad irregular postmedian band reaching from vein 1 *b* to vein 6, and the indication of a spot near the apical third of cell 6 fulvous. Underside: fore wing as on the upperside save that the cell-spot is not continued towards the base, the streaks in cell 1 *a* and next the dorsum are wanting, and the spots in cells 5 to 8 are more strongly developed; fringe fuscous, passing into yellow at the tornus; hind wing brown, closely sprinkled with yellow scales, the pale markings as on the upperside save that there is a round yellow spot in the cell near the base of vein 6, and the pale spot in cell 6 is more strongly developed, reaching nearly to vein 7; fringe fuscous, yellow from the tornus to vein 2. Wing-length 14 mm.

Halpe.

Halpe, Moore, P. Z. S. 1878, p. 689; Watson, op. cit. 1893, p. 108.

Species of moderate or small size, brown or grey-brown above; fore wing with hyaline spots, but not one in cell 4; no hyaline spots in hind wing except in *H. submacula*, Leech. Antennæ longer than half the costa; club slender; length of the apiculus about twice the width of the club. Third joint of palpi short, porrect, nearly concealed. Fore wing: basal portion of vein 5 receding from vein 6, vein 5 therefore arising much nearer to vein 4 than to vein 6; or vein 5 straight, arising very little nearer vein 4 than vein 6, its basal portion not receding from vein 6; vein 2 from near the half-length of the cell (except in *separata*, *blanchardi*, and *subflava*, where it arises from the apical third of the lower margin of the cell); termen generally shorter than the dorsum. Hind wing: vein 5 nearly obsolete; in the males vein 7 is abruptly bent upwards at the base, and at the same point there is a corresponding deflexion of the upper margin of the cell, so that the whole subcostal vein of the hind wing forms a figure resembling a tuning-fork; the latter structure is correlated to a discal sex-mark on the fore wing and is found in a few other genera. Tibial epiphysis present; hind tibiæ with two pairs of spurs.

Sex-mark on the fore wing of the male a broad ridge of modified scales passing obliquely from below the basal third of vein 1 *a* to the base of vein 3; in structure this sex-mark consists of two large corneous pits filled with yellow flocculent hairs and covered with broad modified scales; vein 1 *a* is abruptly angulate before the middle.

The sex-mark is wanting in *H. astigmata*, Swinh., and *H. hieron*, de Nicév.

The following table includes all the species that we have been able to examine critically. The species of this genus can rarely be identified with certainty from figures:—

Males.

1 (58). Disc of hind wing above not occupied by a large suffused or well-defined yellow spot traversed by the brown veins.
2 (57). Hind wing below without silvery stripes.
3 (56). Clothing of breast and palpi not pure white.
4 (23). Club of antennæ banded with white on the upperside next to the apiculus.
5 (22). Hind wing without hyaline spots.
6 (9). Hind wing below with a sharply defined white median band running from the apex of cell 7 to the middle of cell 1 *b*, where it is abbreviated.
(8). Fore wing: pale spot in cell 2 about one-third as long as that cell. *zema*, Hew
8 (7). Fore wing: pale spot in cell 2 about one-sixth as long as that cell. *ormenes*, Weym.
9 (6). Hind wing below not as in paragraph 6.
10 (13). Hind wing below with a pale spot near the base of cell 7.

11 (12). Hind wing below with a more or less prominent white macular median band; white spot at the base of cell 7 conspicuous . . *cerata*, Hew.

12 (11). Hind wing below without a macular median band; white spot at the base of cell 7 inconspicuous; a suffused stramineous spot near the apical third of cell 1 *b*, a minute pure white spot in each of cells 2, 3, 4, 5, and 6, those in cell 3, 4, and 5 very minute and sometimes wanting. No sex-mark on fore wing above . *astigmata*, Swinh.

13 (10). No pale spot in the base of cell 7 on hind wing below.

14 (15). Fringe of hind wing pure white . . . . . *insignis*, Dist.

15 (14). Fringe of hind wing not pure white.

16 (17). Fore wing above: pale spot in the cell geminate . . . . . *hyrie*, de Nicév.

17 (16). Fore wing above: pale spot in the cell single, next the upper edge of the cell, at most with a punctiform pale spot below it.

18 (21). Fringe of the fore wing beneath whitish or chequered.

19 (20). Cell-spot in fore wing single, next the upper edge of the cell. Termen of the hind wing continuously rounded, the tornus consequently not appearing to be produced; the fringe pale brownish grey . . . . . *kumarâ*, de Nicév.

20 (19). Cell-spot in the fore wing with a pale point next its lower edge. Termen of the hind wing somewhat straightened between veins 4 and 1 *b*, the tornus therefore appearing somewhat produced; the fringe white with the short scales brown. . . . . *knyvetti*, n. sp.

21 (18). Fringe of the fore wing beneath grey-brown, concolorous with the wing . . . . . *fasciata*, n. sp.

22 (5). Hind wing with three hyaline spots . . . . . *submacula*, Leech.

23 (4). Club of antennæ not banded with white on the upperside next the apiculus.

24 (51). Vein 2 of fore wing arising near the half-length of the cell.

25 (50). Hind wing below normally with markings.

26 (43). Pale pattern of hind wing below consisting of a straight oblique discal band and a more or less distinct subterminal band of suffused spots, the latter arising in a pale spot near the apical third of cell 1 *b* and becoming gradually obsolescent towards the apex. This pattern is frequently almost obsolete, but it is always possible to trace its relationship to the typical pattern as displayed in a well-marked example of *homolea*.

27 (30). Hind wing below: discal band sharply defined.

28 (29). Discal band on the hind wing below white, appearing on the upperside as an indistinct suffused pale patch . . . . . *moorei*, Wats.

29 (28). Discal band on the hind wing below yellowish white, not appearing on the upperside . . . . . *ceylonica*, Moore.

30 (27). Hind wing below: discal band suffused or obsolescent.

31 (42). Hind wing below with the pattern at least traceable.

32 (35). Hind wing below with the basal half of cells 4–5 stramineous.

33 (34). Size larger: a pale spot in cell 8 of fore wing above; long hairs on the disc of hind wing above brown . . . . . *nephele*, Leech.

34 (33). Size smaller: no pale spot in cell 8 of fore wing above; disc of hind wing above conspicuously clothed with long grey hairs. . *sulphurifera*, H.-S.

35 (32). Hind wing below: basal half of cells 4–5 not stramineous, or if so the limits of the pale colour not sharply defined.

36 (37). Expanse 36 mm. . . . . *majuscula*, n. sp.

37 (36). Expanse about 30 mm.

38 (41). Fore wing: hyaline spot in cell 2 not crescent-shaped, generally oblong and straight-sided; ground-colour of the underside grey-brown.

39 (40). Fore wing below: fringe grey, not distinctly chequered; side horns of tegumen falcate, pointed, reaching about halfway to the apex. *sikkima*, Moore.

40 (39). Fore wing below: fringe whitish, distinctly chequered, at least next veins 2 and 3; side horns of tegumen nearly straight, reaching nearly to the apex, their apex rather obliquely truncate with the angles produced . . . . . *homolea*, Hew.

41 (38). Hyaline spot in cell 2 of fore wing small and crescent-shaped; ground-colour of underside vinous brown . . . . . *brunnea*, Moore.

42 (31). Hind wing below brown with a sprinkling of grey scales, the latter so arranged as very faintly to indicate subterminal and discal bands. Apex of tegumen, in the dorsal aspect, consisting of two broadly falcate incurved connivent teeth . . . . . *fusca*, Elwes.

43 (26). No pale discal band on the hind wing below, the pale markings there consisting of more or less distinct spots.

44 (45). Hind wing below ochreous brown, with a conspicuous white punctiform spot in each of cells 2 and 3 . . . . . *sitala*, de Nicév.

45 (44). Hind wing below normally with a pale spot in each of cells 2, 3, and 6.

46 (47). Hind wing below brown, more or less closely covered with sulphureous scales[1] and thus appearing yellow or greenish yellow with brown veins . . . . . *varia*, Murr.

47 (46). Hind wing below with the veins concolorous.

48 (49). Hind wing below closely sprinkled with grey scales and thus appearing greenish brown; a faint grey spot in cells 2, 3, and 6. *gupta*, de Nicév.

49 (48). Hind wing below closely sprinkled with ochreous scales and thus appearing greenish ochreous; an indistinct pale spot in each of cells 2, 3, and 6, and a suffused subterminal macular pale band. *debilis*, n. sp.

50 (25). Hind wing below without markings . . . . . *aina*, de Nicév.

51 (24). Vein 2 of fore wing from the apical third of the lower edge of the cell.

52 (53). Hind wing below dull brownish green without markings . . . *separata*, Moore.

53 (52). Hind wing below with markings.

54 (55). Hind wing below brown, closely covered with ochreous scales, which form an indistinct suffused subterminal macular band . *blanchardi*, Mab.

55 (54). Hind wing below bright yellow, with a small black spot in each of cells 2, 3, and 7, and a blackish stripe in cell 1*b* . . . . . *subflava*, Leech.

[1] Sometimes there is little or no yellow scaling on the hind wing below, which is then greenish brown with three pale spots.

56 (3). Clothing of breast and palpi pure white . . . . . *albipectus*, de Nicév.
57 (2). Hind wing below with silvery markings, namely a spot in the base of cell 7, a stripe occupying the whole of cell 6, a stripe occupying the basal two-thirds of cell 3, and a small oblong spot near the apical third of cell 2 . . . . . *bivitta*, Ob.
58 (1). Disc of hind wing above with a large suffused or well-defined yellow patch traversed by the brown veins.
59 (60). Basal portion of vein 5 in the fore wing receding from vein 6, vein 5 therefore arising much nearer to vein 4 than to vein 6. A sex-mark on the fore wing above . . . . . *decorata*, Moore.
60 (59). Vein 5 in the fore wing straight, arising very little nearer to vein 4 than to vein 6, its basal portion not receding from vein 6. No sex-mark on the fore wing above.
61 (62). Disc of hind wing above with one or more sharply defined yellow spots, of which that next the transverse vein is the largest and strongest . . . . . *masoni*, Moore.
62 (61). Disc of hind wing above yellow, that colour suffused with the brown colour of the termen . . . . . *honorei*, de Nicév.

! HALPE ZEMA.

Hesperia zema, Hewitson, Ann. & Mag. Nat. Hist. (4) xix. p. 77 (1877).

Halpe zema, Elwes, Trans. Ent. Soc. Lond. 1888, p. 455, pl. xi. fig. 7, ♂ ; Watson, Hesp. Ind. p. 74 (1891).

Hesperia ormenes, Plötz, Stett. ent. Zeit. 1886, p. 92 ; Weymer, t. c. 1887, p. 16, pl. ii. fig. 6.

Of *H. ormenes*, Weymer, described from Nias, I have two doubtful specimens from Pulo Laut and one from Bali which differ from *zema* only in the smaller size of the spots on fore wing. As, however, a Tavoy specimen is intermediate in this respect and a specimen in coll. Staudinger from Borneo is nearer to *zema* than to *ormenes*, we prefer to treat is as an inconstant variety of *zema*.

Hab. Sikkim (*Elwes*, *Möller*) ; Nagas (*Doherty*) ; Ataran Valley, Tavoy (*Tucker*) ; Borneo (*coll. Stgr.*) ; Pulo Laut, Bali (*Doherty*).

! HALPE CERATA.

Hesperia cerata, Hewitson, Ent. Mo. Mag. 1876, p. 152.

Halpe cerata, Elwes, Trans. Ent. Soc. Lond. 1888, p. 454, pl. xi. fig. 8, ♂ ; Watson, Hesp. Ind. p. 73.

Hab. Sikkim (*Möller*) ; Bhamo, Burmah (*in coll. Stgr.*) ; ? Philippine Islands (*Rössler*, *ex coll. Snellen*, as *sulphurifera*, H.-S.).

! HALPE ASTIGMATA.

Parnara astigmata, Swinhoe, Ann. & Mag. Nat. Hist. (6) v. p. 363 (1890).

♂. No sex-mark on the fore wing above. Upperside dark brown, with a purple shade on the fore wing ; the latter with five hyaline spots, one, geminate, in the cell, and one each in cells 2, 3, 6, and 7, the last-named punctiform. Underside dark

brown: fore wing with the hyaline spots as on the upperside and a very minute white spot in cell 8, a pale suffused macular subterminal band faintly indicated; hind wing a little warmer in colour than the fore wing by reason of a sprinkling of yellowish-grey scales, an inconspicuous white spot at the base of cell 7, a suffused stramineous spot near the apical third of cell 1 *b*, and a minute pure white spot in each of cells 2, 3, 4, 5, and 6, those in cells 3, 4, and 5 very minute and sometimes wanting, a pale suffused submarginal band faintly indicated. Fringes whitish grey, chequered with brown next the ends of the veins. Body and legs concolorous with the wings; palpi somewhat lighter, the second joint being clothed with ochreous and black scales intermixed. Antennæ above dark brown, conspicuously banded with white next the base of the pale red apiculus, spotted with white in front; club beneath pale ochreous.

The above description was written before we knew that the insect had been already described, and we therefore print it in the hope that it may prove useful to some who may not have ready access to the original description.

Hab. Nilgiri hills (*Hampson*).

Halpe insignis.

Baoris ? insignis, Distant, Rhop. Mal. p. 391, pl. xxxv. fig. 22 (1886).

Hab. Singapore (type); Tandjong Djatti, Sumatra (*Martin*). Type in coll. Rothschild

! Halpe hyrie.

Halpe hyrie, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 388, pl. G. fig. 34, ♂.

Hab. Naga hills (*Doherty*).

! Halpe kumara.

Halpe kumara, de Nicéville, Jour. As. Soc. Beng. 1885, p. 121, pl. ii. fig. 10, ♂; Watson, Hesp. Ind. p. 72.

Hab. Sikkim (*Möller*).

! Halpe knyvetti, n. sp. (Plate XXI. fig. 2, ♂.)

Besides the characters given in the table above this species has the hind wing below yellow-brown by reason of a close sprinkling of yellow scales on a brown ground: in one specimen there is a faint indication of a tendency to the pattern on the hind wing below found in *H. homolea* and its allies, in a suffused yellow spot near the apical third of cell 1 *b* preceded by traces of a dark postmedian macular band; in the other specimen the hind wing below is somewhat paler along the course of vein 1 *b*, but is otherwise unmarked. *H. knyvetti* may, however, be distinguished from any member of the *homolea* group by the white band on the upperside of the club of its antennæ next the apiculus.

Expanse 40 mm.

Described from two males from Sikkim in Elwes collection.

This species is undoubtedly close to *kumara*, of which I have but one specimen, but it seems sufficiently distinct.

Halpe fasciata, n. sp. (Plate XXI. fig. 7, ♀.)

♀. Upperside dark brown; fore wing with five white spots, one quadrate in cell 2, one subquadrate or roundish in cell 3, one (subquadrate or roundish) in each of cells 6 and 7, and one very small and indistinct next the upper edge of the cell. Underside grey-brown: fore wing somewhat darker on the disc, the white spots as on the upperside and a subterminal row of indistinct suffused whitish spots; hind wing with a subterminal row of indistinct suffused whitish spots. Fringe of the fore wing grey-brown concolorous with the wing, of the hind wing similar but indistinctly spotted with whitish. Antennæ above black with a white band next the apiculus, underside spotted with white. Body above dark brown, clothing of the breast and legs grey; abdomen beneath blackish, hind margin of the segments with a narrow indistinct pale band.

Expanse 33 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from one example ex coll. Staudinger. Of the species known to us this species comes nearest to *kumara* and *knyvetti*, but it is in our judgment distinct from either. The close yellow scaling of the hind wing and the extra-discal portion of the fore wing on the underside so conspicuous in those two species is wanting in the specimen before us, but this may possibly be due to abrasion.

Halpe lucasii.

Hesperilla lucasii, Mabille, Ann. Soc. Ent. Fr. 1876, p. cliii.
Halpe lucasi, Leech, Butt. China, &c. p. 624 (1894).

We have not seen this species, but, according to Mr. Leech, it is allied to *H. kumara*, from which it differs in having a double spot in the cell of the fore wing, a more elongate hind wing, and a central series of four black spots on the hind wing below.

Hab. Moupin (*David*).

Halpe cænis.

Halpe cænis, Leech, Butt. China, &c. p. 625, pl. xlii. fig. 16, ♂ (1894).

Of this species, which was described from one male specimen taken in Western China at Chia-kou-ho in August, we transcribe the original description:—

"Blackish brown, clothed about the base of primaries and disc of secondaries with fulvous hairs. Sexual brand well defined; there are six white spots on primaries

placed as in *H. varia*, Murray, but that at end of cell is double. Under surface of primaries fuliginous, much suffused with ochreous brown about costa and apex; spots as above: secondaries ochreous brown, with very faint indications of white central spots. Fringes whitish above, greyish beneath with faint chequering. Antennæ black above, ringed beneath with yellow; club yellow beneath, tipped with castaneous.

"Expanse 40 millim."

The figure of this species greatly resembles *H. kumara*, but differs in its larger size and in having the hind wing narrowed towards the tornus.

Hab. W. China (*coll. Leech*).

! HALPE SUBMACULA.

Halpe submacula, Leech, Entomologist, xxiii. p. 48 (1890); id. Butt. China, &c. p. 622, pl. xlii. fig. 13, ♂ (1894).

Hab. Central China (*Pratt*).

This is a very distinct species on account of the three large spots on the hind wing above.

HALPE BETURIA. (Plate XXI. fig. 13.)

Hesperia beturia, Hewitson, Descr. Hesp. p. 36 (1868).
Halpe beturia, Watson, P. Z. S. 1893, p. 110.

According to Watson this species "differs from *moorei* in having only four spots on the upperside in the male, two discal and two subapical, and the fringe is unicolorous throughout; in what appears to be the female there is an additional minute subapical spot, a minute indistinct spot at upper angle of cell, and the usual spot peculiar to the female on the submedian. On the underside of the hind wing all the spots are much diffused and irrorated with yellow. It is also a considerably larger insect, the male expanding 42 mm. and the female 43 mm."

Hab. Celebes (*fide Hewitson*).

We take this opportunity of figuring the type specimen in the British Museum.

! HALPE MOOREI.

Halpe moorei, Watson, P. Z. S. 1893, p. 109.
Halpe beturia, auct. *nec* Hew.
Halpe teliga, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 326.

Hab. Calcutta (*de Nicéville*); Khasia (*fide Swinhoe*); Trichinopoly (*Castets*); Burmah (*Watson*, *Manders*); Andamans (*de Roepstorff*).

! HALPE CEYLONICA.

Halpe ceylonica, Moore, P. Z. S. 1878, p. 690, pl. xlv. fig. 9.

Hab. Nilgiri hills (*Hampson*); Ceylon (*fide Moore*).

! Halpe nephele.

Halpe nephele, Leech, Butt. China, &c. p. 622, pl. xlii. fig. 15, ♂ (1894).

Hab. Western China (*Leech*).

Halpe majuscula, n. sp. (Plate XXI. fig. 6, ♂.)

♂. Upperside brown: fore wing with the usual *Halpe* sex-mark and four sordid yellowish hyaline spots, one each near the base of cells 2 and 3, and one (small and roundish or subquadrate) in each of cells 6 and 7. Underside grey-brown: fore wing with the pale spots as on the upperside and a narrow feeble, suffused, macular subterminal band; hind wing with a broad suffused macular median band and a subterminal band of about four suffused pale spots, of which the one near the apical third of cell 1 *b* is more than twice as large as the others. Fringe of the fore wing grey-brown, of the hind wing dark grey with the short scales grey-brown. Body above brown, breast and legs with grey clothing; abdomen beneath blackish, hind margins of the segments with a band of grey scales. Antennæ above dark brown, spotted beneath with yellowish grey; club yellowish grey beneath; apiculus pale red on the underside.

This species is very like *H. nephele*, Leech, but the markings on the hind wing below are paler and more suffused.

Expanse 36 mm.

Hab. Minahassa.

Described from one example ex coll. Staudinger.

! Halpe sulphurifera.

Cobalus sulphurifera, Herrich-Schäffer, Prod. Syst. Lep. iii. p. 82 (1867).
? *Hesperilla luteisquama*, Mabille, Bull. Soc. Ent. Fr. 1876, p. cxcix.
Halpe sulphurifera, Semper, Schmett. Philipp. p. 305 (1892).

A specimen of *H. luteisquama* sent by M. Mabille has cell 1 *a* on the fore wing below entirely brown; in Philippine specimens of *H. sulphurifera* this cell is crossed near the middle by an oblique white spot, which reaches from vein 1 *a* to vein 2, and is constricted near the middle in the female, but is less developed and scarcely reaches vein 2 in the male. It may be a distinct species.

Hab. Luzon, Mindoro, Guimaras, Bohol, Leyte, Sulu I. (*Semper*); Mouipin (*fide Mabille*).

! Halpe sikkima. (Plate XXV. fig. 70.)

Halpe sikkima, Moore, P. Z. S. 1882, p. 407; Watson, Hesp. Ind. p. 70 (1891).
Pamphila homolea, var. *palawea*, Staudinger, Iris, ii. pp. 144, 165 (1889).
Halpe palawea, Semper, Schmett. Philipp. p. 358 (1892).

Judging from a specimen sent by Semper *palawea* is certainly not separable as a species from *sikkima*, of which the type is in Elwes's collection.

A specimen from Kina Balu, Borneo, sent by Staudinger, only differs from a specimen from East Pegu in wanting the pale spot in cell 7 of the fore wing.

Hab. Sikkim (*Elwes*); Nagas, E. Pegu (*Doherty*); Palawan (*Platen*).

! HALPE HOMOLEA. (Plate XXV. fig. 71)

Hesperia homolea, Hewitson, Descr. Hesp. p. 29 (1868); Watson, Hesp. Ind. p. 71, note (1891).
Halpe sikkima, Elwes, Trans. Ent. Soc. Lond. 1888, p. 453 (in part.), pl. xi. figs. 3, 4, ♂.
Halpe aucma, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 325, *sec. spec. typ.*
Halpe perara, id. l. c., *sec. spec. typ.*
Halpe marta, id. l. c., *sec. spec. typ.*
Halpe wantona, id. l. c., *sec. spec. typ.*

Hab. Sikkim (*Elwes*); Nagas, E. Pegu, Pulo Laut, Perak, Bali (*Doherty*).

In Watson and de Nicéville's opinion this species is doubtfully distinct from *H. sikkima*, and the occurrence of both in Sikkim, Nagas, and Pegu would tend to confirm this opinion, but the genitalia of numerous specimens examined by Mr. Edwards prove the species to be distinct.

We are indebted to Col. Swinhoe for the opportunity of examining the male genitalia of his four species mentioned above.

A specimen in coll. Rothschild from Palawan (*Everett*), expanding only 25 mm., appears to belong here; this may be the "*Pamphila homolea*, Hew. ?, var. ?*palawea*" of Dr. Staudinger (Iris, ii. p. 144, 1889), which he subsequently (*t. c.* p. 165) elevated to the rank of a species; but it is to be remarked that whilst Dr. Staudinger's insect is stated by him to be separable from *homolea* by the want of any hyaline cell-spot on the fore wing, the specimen before us has two cell-spots on the fore wing, of which the upper one only is truly hyaline, the lower one being visible on the underside only.

HALPE HIERON.

Halpe hieron, de Nicéville, Jour. As. Soc. Beng. 1894, p. 54, pl. iv. fig. 1, ♂.

♂. Upperside grey-brown; pale spots proper to the fore wing obsolete or absent; no sex-mark. Underside pale brownish grey, closely and irregularly clothed with whitish-grey scales so as to indicate a pale macular subterminal band on the fore wing and a pale postmedian band on the hind wing; a suffused whitish-grey spot in each of cells 2 and 3 of the fore wing.

Expanse 29–31 mm.

Hab. Bekantschan, N.E. Sumatra (*Martin*).

HALPE BRUNNEA.

Halpe brunnea, Moore, Lep. Cey. i. p. 174, pl. lxx. figs. 4, 4 *a*, ♀ (1880-81).

♂. Upperside dark vinous brown: fore wing with four small hyaline white spots—one crescent-shaped in cell 2, one much smaller and roundish in cell 3, one punctiform in cell 6, and one very minute in cell 7. Underside pale vinous brown, disc of the

fore wing darker; on the fore wing an indistinct subterminal pale macular band from the costa as far as vein 3, and an indication of a small whitish spot near the apical fourth of the upper edge of the cell; hind wing with the discal and subterminal bands as in *homolea*, save that the former is directed rather to a point beyond the apex of the wing than to the actual apex as in *homolea*. Fringe of the fore wing dark grey indistinctly chequered, of the hind wing dark grey with the short scales brown.

♀. Similar to the male, but having the pale cell-spot on the fore wing visible on the upperside.

Hab. Ceylon.

The above particulars are taken from a pair from Ceylon, ex coll. Rothschild. Moore's figures are not characteristic.

! Halpe fusca. (Plate XXV. fig. 72.)

Halpe fusca, Elwes, P. Z. S. 1892, p. 653, pl. xliii. fig. 1,.

Hab. Bernardmyo, Burmah (*Doherty*).

! Halpe sitala.

Halpe sitala, de Nicéville, Jour. As. Soc. Beng. 1885, p. 121, pl. ii. fig. 5, ♂; Watson, Hesp. Ind. p. 75 (1891).

Hab. Nilgiris (*Hampson*); Arnamalai hills (*Davison*).

Halpe latris.

Halpe latris, Leech, Butt. China, &c. p. 623, pl. xlii. fig. 17, ♂.

Chiefly differs from *H. sitala* in having the dorsum of the hind wing below blackish as far as vein 1 *b*.

Hab. Ta-tsien-lo (*Leech*).

! Halpe varia.

Pamphila varia, Murray, Ent. Mo. Mag. xi. p. 172 (1875).
Halpe varia, Leech, Butt. China, &c. p. 621, pl. xlii. fig. 18, ♂ (1894).

Hab. Japan (*Pryer*, *Leech*).

! Halpe gupta.

Halpe gupta, de Nicéville, Jour. As. Soc. Beng. 1886, p. 255, pl. xi. fig. 1, ♂; Watson, Hesp. Ind. p. 73 (1891).

Hab. Sikkim (*Möller*).

Halpe debilis, n. sp. (Plate XXI. figs. 1 ♂, 5 ♀.)

♂. Upperside brown: fore wing with six sordid white hyaline spots—two oblong, one each in cells 2 and 3, three small and oblong, one each in cells 6, 7, and 8; the

cell-spots narrowly confluent and appearing as one spot much constricted in the middle. Underside greenish ochreous, the disc of the fore wing blackish; hind wing with an indistinct whitish spot in each of cells 2, 3, and 6, and a pale suffused subterminal macular band. Fringe of the fore wing pale grey, becoming whitish towards the tornus, of the hind wing whitish with the short scales grey. Antennæ blackish spotted with yellow in front; club and part of the shaft yellow beneath; apiculus pale red. Body above concolorous with the wings. Clothing of the second joint of palpi, breast, legs, and abdomen beneath greyish yellow.

♀. Similar to the male, but having on the fore wing a triangular white spot in cell 1 *a* next vein 1 *a* just beyond the middle, and the cell-spots broadly confluent and therefore forming one solid spot scarcely constricted in the middle.

Expanse 32–34 mm.

Hab. Khasia hills.

Described from one pair ex coll. Rothschild.

! HALPE AINA.

Halpe aina, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 176, pl. B. fig. 8, ; Watson, Hesp. Ind. p. 72 (1891).

Hab. Sikkim (*Möller*).

! HALPE SEPARATA.

Halpe separata, Moore, P. Z. S. 1882, p. 407; Elwes, Trans. Ent. Soc. Lond. 1888, p. 454, pl. xi. figs. 5 ♂, 6 ♀; Watson, Hesp. Ind. p. 71.

Hab. Sikkim (*Elwes*); Nagas (*Doherty*).

Type in coll. Elwes.

! HALPE BLANCHARDI.

Hesperilla blanchardi, Mabille, Ann. Soc. Ent. Fr. 1876, p. cliii.
Halpe blanchardi, Leech, Butt. China, &c. p. 625, pl. xlii. fig. 19, ♂ (1894).

Hab. West China (*Leech*).

! HALPE SUBFLAVA.

Halpe subflava, Leech, Butt. China, &c. p. 625, pl. xlii. fig. 21, ♂ (1894).

A very distinct and well-named species on account of the clear yellow colour of the hind wing below.

Hab. Western China (*Leech*).

HALPE ALBIPECTUS.

Halpe albipectus, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 389, pl. G. figs. 35 ♂, 36 ♀.

Hab. Maingyé, Shan hills (*Manders*).

♀ type in coll. Elwes.

Halpe bivitta.

Pamphila bivitta, Ob. Etud. d'Ent. xi. p. 28 (1886).
Pamphila albivitta, id. t. c. p. 38, pl. vi. fig. 46.
Halpe bivitta, Leech, Butt. China, &c. p. 623 (1894).

Hab. West China (*Pratt*).

Halpe decorata.

Halpe decorata, Moore, Lep. Cey. i. p. 173, pl. lxxi. fig. 2 (1881); Watson, Hesp. Ind. p. 76 (1891).

Hab. Avisawella, Ceylon (*in coll. Rothschild*).

This is a true *Halpe*, which bears much resemblance on the upperside to *H. honorei*, de Nicév. The hind wing below is chrome-yellow, with the termen narrowly and suffusedly pale brown, and with several small irregular pale brown spots placed as follows:—two beyond the middle of cell 1 *b* divided by the intraneural fold, two in cell 2 at equal distances from the base and apex of that cell and from each other, one near the basal third of cell 3, one near the middle of cells 4–5, one across the basal fourth of cell 6, and two in cell 7 at equal distances from the base and apex of that cell and from each other. These particulars are taken from a male specimen ex coll. Rothschild.

! Halpe masoni.

Pamphila masoni, Moore, P. Z. S. 1878, p. 842, pl. lii. fig. 5, ♂.
Isoteinon masoni, Elwes & de Nicéville, Jour. As. Soc. Beng. 1886, p. 442, pl. xx. fig. 4, ♂; Watson, Hesp. Ind. p. 85 (1891).

Hab. Burmah (*Watson*, *Adamson*).

! Halpe honorei.

Halpe honorei, de Nicéville, P. Z. S. 1887, p. 464, pl. xl. fig. 8, ♀; Watson, Hesp. Ind. p. 75 (1891).

Hab. Nilgiris (*Hampson*); Trichinopoly (*Castets*).

Halpe ornata.

Hesperia ornata, Felder, Reise Nov., Lep. iii. p. 515, pl. lxxii. fig. 6, ♂ (1867).
Parnara ornata, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 382, pl. xviii. figs. 7, 7 *a*, ♂; Watson, Hesp. Ind. p. 38 (1891).

We have not seen this species.

Hab. Buitenzorg, Java (*Felder*); Doarband, Cachar (*Wood-Mason & de Nicéville*).

Onryza.

Onryza, Watson, P. Z. S. 1893, p. 112, pl. ii. fig. 5.

A monotypic genus, of which, through the kindness of Col. Adamson, we have been able to examine the type. It is distinguished from the *masoni* section of *Halpe* chiefly

by the sex-mark of the male, which is in the form of "a patch of long recumbent hairs on the upperside of the hind wing, attached along vein 8 from close to the base of the wing."

ONRYZA MEIKTILA.

Parnara? meiktila, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 386, pl. G. fig. 32, ♂.

Hab. Meiktila, Upper Burmah, Upper Chindwin, Feb. (*Adamson*); Poungadaw, Burmah (*Watson*); Ataran Valley, Burmah (*Bingham, fide de Nicéville*).

ITON.

Iton, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 399. Type *semamora*, Moore.

This is a genus established by Mr. de Nicéville for *semamora*, Moore, and *watsonii*, de Nicév. Both these species have been placed in the genus *Parnara*; and if the form of their antennæ, palpi, and wings, and the venation be compared with that of some species of *Parnara*, such as *P. austeni*, their relationship to that genus will at once be evident. The chief point of distinction lies in the pattern of the hind wing below, of which the main diagnostic feature is the fact that the discoidal cell is wholly white, and cells 4–5 and 6 are white except at the apex. The male of *semamora* has a patch of long upturned hairs near the middle of the dorsum of the fore wing below; the same sex of *watsonii* has no alar sex-mark.

! ITON SEMAMORA.

Hesperia semamora, Moore, P. Z. S. 1865, p. 791.
Hesperia barea, Hewitson, Trans. Ent. Soc. Lond. ser. 3, vol. ii. p. 490 (1866), *fide* de Nicéville.
Parnara semamora, Watson, Hesp. Ind. p. 46 (1891).

Hab. Sikkim (*Möller, Gammie*); Tilin Yaw, Burmah (*Watson*); Khasia (*Hamilton*); Pegu, Pulo Laut (*Doherty*).

! ITON WATSONII.

Parnara watsonii, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1890, p. 223; id. op. cit. 1891, p. 388, pl. G. fig. 29, ♂; Watson, Hesp. Ind. p. 46 (1891).

Hab. East Pegu (*Doherty*); Tilin Yaw (*Watson*); Fort Stedman, Shan hills (*Manders*).

We have seen, from the collection of Col. Adamson, an aberrant male specimen of this species taken at Kaléwa, on the Chindwin River, in October; on the upperside of the hind wing the white patch is quite as extensive as in some specimens of *semamora*, but the hind wing below, although very much abraded, still retains the characteristic pattern of *watsonii*; the clasp-form can, without dissection, be made out sufficiently well to show that in this respect it agrees very well with *watsonii*, and is absolutely distinct from *semamora*.

PARNARA.

Parnara, Moore, Lep. Cey. i. p. 166 (1881); Watson, P. Z. S. 1893, p. 105. Type *guttatus*, Brem.
Chapra, Moore, t. c. p. 169. Type *mathias*, Fab.
Baoris, Moore, t. c. p. 165; Watson, t. c. p. 106. Type *oceia*, Hew.
Caltoris, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 323.

Body robust, fore wing pointed, upperside brown with a few white or yellowish-white spots. Antennæ as long or longer than half the costa; club moderate; apiculus distinct, as long or longer than the greatest width of the club. Palpi: second joint densely scaled; third joint obtuse, very short, and almost concealed. Fore wing with a series of bare (and therefore hyaline) white spots, of which the position and full complement is as follows:—one each, decreasing in size, near the bases of cells 2, 3, and 4; one each, of nearly equal size, in cells 6, 7, and 8; and two near the apex of the cell; sometimes there is a white spot in cell 1 *a*, but this does not properly belong to the hyaline series, as it is not usually bare on the underside, but is represented there by a suffused whitish spot; it does not appear that there is ever a pale spot in cell 5, except in *P. beavani* and the female of *P. assamensis*; the pale spot in cell 4 is normally always present, its absence occurs most frequently in *P. oceia*; vein 5 arises much nearer 4 than 6, and curves upward from the base, and vein 2 arises at about the half-length of the cell. Hind wing: sometimes with a series of white spots, but without any pattern on the underside, save a row of spots: vein 2 from the apical fourth of the cell, vein 5 obsolete. Legs as in *Gegenes*.

Zelleri, Led., *tulsi*, de Nicév., and *cærulescens*, Mab., are true Parnaras in venation. *P. pugnans*, de Nicév., has vein 2 of the fore wing arising from near the basal third of the cell.

The generic term *Parnara*, as here used, includes *Parnara* proper, *Chapra* and *Baoris*, Moore, and *Caltoris*, Swinhoe. Distant and Watson use *Baoris* in the same sense, but as the first three names are synchronous in publication, and both *Baoris* and *Chapra* were definitely limited by their author to species possessing a certain kind of alar sex-mark in the male, we prefer the term *Parnara* on the ground that it was not so limited, and that it has been in use for the majority of the species for a long time. The presence or absence of some of the pale spots on the wings is a very useful character for the separation of species in this difficult genus, particularly when it is correlated with differences in the male genitalia. In the species of the *oceia* group, however, the number of the pale spots has proved perfectly unreliable as a distinctive character, but this fact does not affect the utility of the character where other species are concerned. It has not been found practicable to form any linear arrangement of the species which shall satisfactorily indicate their natural affinities *inter se*, but the consecutive arrangement here adopted will probably be found as useful as any other yet proposed.

The following table, which deals with male insects only, sets forth the characters by means of which we separate the species known to us:—

Males.

1.	Hind wing above with a tuft of long hair on the basal half of vein 6 covering a suboval patch of androconia. (*Baoris.*) .	2.
	Fore wing below with an upturned tuft of long hair near the middle of the dorsum	*plebeia*, de Nicév.
	Fore wing above with a linear whitish sex-mark from the middle of vein 1 *a* to the basal third of vein 2. (*Chapra.*)	3.
	Wings without a sex-mark. (*Caltoris.*)	7.
2.	Hind wing below plain brown	*oceia*, Hew.
	Hind wing below greenish yellow-brown	*leechii*, n. sp.
	Hind wing purple-brown, plain brown in cells 1 *a* and 1 *b* . .	*simillima*, n. sp.
3.	Sex-mark of even width throughout	4.
	Sex-mark constricted near the middle	*nascens*, Leech.
4.	Hind wing below with three or more pale spots	5.
	Hind wing below unspotted	*brunnea*, Snell.
5.	Hind wing above with white spots (forming a row), one in each of cells 2, 3, and 4, or 2, 3, 4, and 5	*sinensis*, Mab.
	Hind wing above with no such row of white spots	6.
6.	Hind wing above with an ill-defined whitish spot in cells 6 and 3; hind wing below with the pale spot in cell 6 the most strongly developed. Fore wing with the pale spot in cell 2 subquadrate. Size larger	*subochracea*, Moore.
	Hind wing above without pale spots. Hind wing below with the pale spot in cell 6 not more strongly developed than the others. Fore wing generally with the pale spot in cell 2 narrow and oblique, about twice as high as wide. Size smaller	*mathias*, Fab.
7.	Hind wing below without a white band from the middle of the costa to the dorsum just before the tornus	8.
	Hind wing below with a white band of the kind last mentioned .	*hasoroides*, n. sp.
8.	Hind wing below not marked with purple or whitish purple . .	10.
	Hind wing below marked with purple or whitish purple . . .	9.
9.	Hind wing below with a very suffused whitish-purple median band	*tulsi*, de Nicév.
	Hind wing below with a postmedian row of purple spots in cells 1 *b* to 6	*cærulescens*, Mab.
10.	Hind wing below without markings, or at most with one pale spot	11.
	Hind wing below with more than one well-defined pale spot . .	21.

11.	Fore wing without cell-spots, or if one is present it is placed next the upper edge of the cell	12.
	Fore wing with one or two cell-spots, if there is only one it is placed next the lower edge of the cell	14.
12.	Fore wing with a white spot in cell 1 *a*, next vein 1 *a* just beyond the middle	*philippina*, H.-S.
	Fore wing without any such spot	*kumara*, Moore.
14.	Pale spot in cell 4 of fore wing above small and roundish . .	15.
	Pale spot in cell 4 of fore wing above oblong, as long as that in cell 3	*pugnans*, de Nicév.
15.	Hind wing below unspotted. Not more than one pale spot in cell 1 *a* of the fore wing	16.
	Hind wing below with a minute whitish spot near the middle of cell 2. Two pale spots in cell 1 *a* of the fore wing, one of which is punctiform and placed next to vein 2	*bromus*, Leech.
16.	Fringes not yellow	17.
	Fringes bright yellow	*aurociliata*, n. sp.
17.	Without a pale spot in cell 8 of the fore wing	18.
	With a pale spot in cell 8 of the fore wing, and also in cell 1 *a* next vein 1 *a* just beyond the middle	*pagana*, de Nicév.
18.	Hind wing below deep warm brown, darker than the apical region of the fore wing below	*moolata*, Moore.
	Not as above	19.
19.	Fore wing below with the pale spot near the middle of cell 1 *a* obsolete or absent; the disc not much darker than the remainder	20.
	Fore wing below with a suffused blackish discal patch from the base to the middle, the pale spot near the middle of cell 1 *a* distinct, suffused	*cahira*, Moore.
20.	Expanse 46 mm.	*robusta*, n. sp.
	Expanse 37–41 mm.	*austeni*, Moore.
21.	Hind wing above with a more or less distinct row of pale spots near the middle	22.
	Hind wing above without a row of pale spots near the middle .	26.
22.	Pale spots on the hind wing in a straight row, gradually decreasing in size from cells 2–5[1]	*guttatus*, Brem.
	Not as above	23.

[1] This is very characteristic of the majority of specimens, but in the smaller ones in which the pale spots on the hind wing are only feebly developed (*bada*, Moore) this character is not so obvious; these latter, however, may always be distinguished from *colaca* and *bevani* by the absence of any trace of the pale spot near the middle of cell 1 *a* on the fore wing above. In all the forms the structure of the tegumen is characteristic of the species.

23. Hind wing below: pale spots in cells 4–5 contiguous, but distinct, frequently there is also a pale spot in cell 6 . . . 24.
Hind wing below: pale spots in cells 4–5 coalescing to form one quadrate spot, no pale spot in cell 6 . . . . . 25.

24. Hind wing below greenish ochreous, pale spot in cell 2 subequal in size to that in cell 4. Side lobes of tegumen spiniform . *pellucida*, Murr.
Hind wing below russet-green, pale spot in cell 2 distinctly smaller than that in cell 4. Side lobes of tegumen capitate. [1] *contigua*, Mab.

25. Fore wing above: pale spots yellowish white, the lower edge of that in cell 2 twice or nearly twice as long as its inner edge. Apex of the œdeagus (seen from below) produced on the left side into a long sharp horn, the right side spinose . . . . *eltola*, Hew.
Fore wing above: pale spots white, the lower edge of that in cell 2 one and a half times or less than one and a half times as long as its inner edge. Apex of the œdeagus produced into two subequal spinose lobes . . . . . *discreta*, n. sp.

26. Hind wing below with no pale spot in the cell . . . . . 27.
Hind wing below with a large white spot in the cell near the apex of its upper edge. Species otherwise resembling *pellucida*, Murray . . . . . *jansonis*, Butl.

27. Hind wing below with the pale spots not black-bordered . . . 28.
Hind wing below with the pale spots black-bordered . . . . *zelleri*, Led.

28. Expanse not exceeding 37 mm. . . . . 29.
Expanse 46 mm. or more . . . . . 31.

29. Fore wing with a pale spot in cell 4 and also in cell 8 . . . 30.
Fore wing with no pale spot in cells 4 or 8. Hind wing with two hyaline points—one near the middle of each of cells 2 and 3 . . . . . *bipunctata*, n. sp.

30. Fore wing below: no pale spot in cell 5, termen straight or feebly concave between veins 1 *a* and 3. Tegumen with a long thin sharp dorsal horn reaching from the middle to the apex . . . . . *colaca*, Moore.
Fore wing below: frequently with a minute pale spot in cell 5 (always present in the female), termen evenly curved throughout. Tegumen with no such horn . . . . . *bevani*, Moore.

31. Hind wing above with a small pure white spot in cell 4; spots on the fore wing pure white . . . . . *assamensis*, W.-M.&deNicév.
Hind wing above with no such spot; spots on the fore wing sordid white . . . . . *conjuncta*, H.-S.

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[1] In specimens from Perak some of the spots on the hind wing are wanting, but the species may always be known by the form of the tegumen.

! Parnara oceia. (Plate XXV. figs. 74, *a*, *b*, *c*.)

Hesperia oceia, Hewitson, Descr. Hesp. p. 31 (1868); Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1881, p. 258.
Hesperia farri, Moore, P. Z. S. 1878, p. 688; Watson, Hesp. Ind. p. 44 (1891).
Baoris oceia, Moore, Lep. Cey. i. p. 165 (1881); de Nicéville, Jour. As. Soc. Beng. 1883, p. 85, pl. x. fig. 11, ♀; Watson, Hesp. Ind. p. 29 (1891).
Baoris penicillata, Moore, Lep. Cey. i. p. 166 (1881); Watson, t. e. p. 30.
Baoris scopulifera, Moore, P. Z. S. 1883, p. 532.
Baoris unicolor, Moore, P. Z. S. 1883, p. 533; *nec* Distant, Rhop. Mal. p. 381, pl. xxxv. fig. 11 (1886).
Baoris sikkima, Swinhoe, Ann. & Mag. Nat. Hist. 1890, v. p. 362.

Hab. Sikkim (*Möller*), Nagas (*Doherty*), Andamans (*de Roepstorff*); Philippines (*Semper*), Palawan (*Platen*); Khasia hills (*Swinhoe*).

! Parnara leechii, n. sp. (Plate XXI. fig. 3, ♂; Plate XXV. figs. 73, *a*, *b*, *c*.)

Baoris oceia, Leech, Butt. China, &c. p. 616, pl. xlii. fig. 6, ♂.

Differs from the preceding and following species in the colour of the hind wing below and in the clasp-form as figured.

Though there is but a single specimen in Elwes's collection in somewhat worn condition, yet we have examined several in Mr. Leech's collection which confirm our belief that the true *oceia* does not occur in China.

Hab. Central and Western China (*Pratt*); Foochow, Ningpo (*Leech*).

! Parnara simillima, n. sp. (Plate XXI. fig. 22, ♂; Plate XXVI. figs. 75, *a*, *b*, *c*.)

Though the slightly paler colour of the hind wing below from cell 1 *b* to the dorsum distinguishes this species from any examples of *oceia* or *leechi* that we have seen, yet the marked difference of the genitalia as figured are the best proof of its specific difference. Described from one male in Elwes's collection.

Hab. Pulo Laut (*Doherty*).

! Parnara plebeia.

Parnara plebeia, de Nicéville, P. Z. S. 1887, p. 466, pl. xl. fig. 2, ♂; Watson, Hesp. Ind. p. 40 (1891).
Pamphila mormo, Mabille, Ann. Soc. Ent. Belg. xxvii. p. 53 (1893).

The male of this species is readily distinguished by the tuft of long hair near the middle of the dorsum of the fore wing below, a feature not noted in the original description; the female may be separated from the same sex of *austeni* by the colour

of the hind wing below, which in *plebeia* is simple umber-brown, and in *austeni* ochreous brown.

A male from Kina Balu, Borneo, ex coll. Staudinger, has the termen less oblique than other males in coll. Elwes, including one from Pulo Laut, and the white spots on the fore wing are reduced in size.

Hab. Sikkim (*Möller*, *Elwes*); Pulo Laut (*Doherty*); Kina Balu (*Waterstradt*); Java (*fide Mabille*).

! Parnara brunnea.

Pamphila brunnea, Snellen, Tijd. Ent. xix. pl. vii. fig. 4 (1876).
Chapra cœre, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 388, pl. G. fig. 33, ♂.
Pamphila sodalis, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 53 (1893).

Hab. W. Java (*ex coll. Snellen*); Pulo Laut, Bali (*Doherty*).

! Parnara sinensis.

Gegenes sinensis, Mabille, Bull. Soc. Zool. Fr. 1877, p. 232.
Chapra prominens, Moore, P. Z. S. 1882, p. 261; Watson, Hesp. Ind. p. 33 (1891).
Pamphila similis, Leech, Ent. xxiii. p. 48 (1890).
Parnara sinensis, Leech, Butt. China, &c. p. 608, pl. xlii. fig. 11, ♂ (1894).

Hab. China (*Pratt*); N.W. Himalaya (*Young*); Sikkim, Khasia (*Elwes*); Nagas, Bali (*Doherty*).

! Parnara subochracea. (Plate XXI. fig. 26, ♂; Plate XXVI. fig. 83.)

Chapra subochracea, Moore, P. Z. S. 1878, p. 691; Watson, Hesp. Ind. p. 32 (1891).
Chapra mathias, var., de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 176, pl. B. fig. 7, ♂.

This species is undoubtedly distinct from *P. mathias*, Fab., differing both in the particulars given in the table above and the form of the male genitalia.

Hab. Barrackpur, near Calcutta (*Minchin*), Nilgiris (*Hampson*), Cachar (*fide de Nicéville*), Peermaad, Travancore (*ex Doneaster*).

! Parnara mathias. (Plate XXVI. fig. 84.)

Hesperia mathias, Fabricius, Ent. Syst., Suppl. p. 433 (1798).
Hesperia thrax, Lederer, Verh. zool.-bot. Ges. Wien, 1855, p. 194, pl. i. figs. 9, 10.
Chapra mathias, Moore, Lep. Cey. i. p. 169, pl. lxx. figs. 1, 1 *a* (1881); Watson, Hesp. Ind. p. 31 (1891).
Baoris mathias, Distant, Rhop. Mal. p. 380, pl. xxxv. fig. 10 (1886).
Hesperia agna, Moore, P. Z. S. 1865, p. 791.
Chapra agna, Moore, Lep. Cey. i. p. 169 (1881); Watson, Hesp. Ind. p. 32 (1891).
Hesperia chaya, Moore, P. Z. S. 1865, p. 791.
Baoris chaya, Distant, Rhop. Mal. p. 380, pl. xxxiv. fig. 9 (1886).

Pamphila mencia, Moore, Ann. & Mag. Nat. Hist. (4) xx. p. 52 (1877).
Parnara mencia, Leech, Butt. China, &c. p. 607, pl. xlii. fig. 14, ♂ (1894).

This seems to be about the most widely distributed and generally common species in Asia, extending from Syria to the Liukiu Islands and Sambawa. It occurs all over India from Kashmir to Malabar, and from Bombay to Pegu and the Malay Peninsula. In addition to the above-named localities, I have it from Borneo, Bali, Japan, and China; and Semper states that it is generally distributed in the Philippines. Holland also records it, as *Baoris chaya*, from Hainan.

! PARNARA NASCENS.

Parnara nascens, Leech, Butt. China, &c. p. 614, pl. xlii. fig. 8, ♂ (1894).

Differs from *sinensis*, Mab., in the following particulars:—Upperside darker brown, the pale spots less strongly developed, one only in cell of fore wing, that in the upper half, sex-mark of the male interrupted in the middle; underside dark brownish green.

Hab. Central China (*Pratt*).

! PARNARA PHILIPPINA. (Plate XXI. figs. 4 ♂, 8 ♀; Plate XXVI. figs. 85, *a*, *b*, *c*.)

Cobalus philippina, Herrich-Schäffer, Prod. Syst. Lep. iii. p. 81 (1869).
Hesperia seriata, Moore, P. Z. S. 1878, p. 688.
? *Baoris seriata*, Moore, Lep. Cey. i. p. 166, pl. lxix. figs. 4, 4 *a* (1881).
Parnara seriata, Watson, Hesp. Ind. p. 42 (1891).
Parnara philippina, Semper, Schmett. Philipp. p. 298, pl. xlix. fig. 12, ♂ (1892).

The type of *Baoris seriata*, Moore, in the British Museum from Ceylon is a female; the wide range of the species suggests that it occurs in other localities, but we know it only from those here mentioned. Though Semper has identified *P. philippina*, H.-S., with *P. seriata*, Moore, yet we think that this identification must remain somewhat uncertain, and we have not been able to compare the Eastern specimens here treated of with the type.

Hab. Ceylon (*in Brit. Mus.*) N. Canara (*Aitken*); Philippines (*Semper*); Amboina (*Stgr.*); Palawan (*fide Stgr.*). Sangir, Talaut (*Doherty*).

! PARNARA KUMARA. (Plate XXVII. figs. 90, *a*, *b*, *c*.)

Hesperia kumara, Moore, P. Z. S. 1878, p. 687.
Baoris kumara, Moore, Lep. Cey. i. p. 166, pl. lxix. figs. 2, 2 *a* (1881).
Parnara kumara, Watson, Hesp. Ind. p. 41 (1891).

Hab. Kina Balu, Borneo, Java (*Staudinger*); Sikkim (*Möller*); Nilgiris (*Hampson*); Arjuno, Java (*Doherty*).

! Parnara bromus.

Parnara bromus, Leech, Butt. China, &c. p. 614, pl. xlii. fig. 10, ♂ (1894).

We recently received from Dr. Staudinger two insects from Folo (? in the Philippine Islands), as *Pamphila philippina*; of these the reputed male is a female of *P. bromus*, Leech, agreeing exactly with the description and figure cited above, and the female is a specimen of that sex of *P. toona*, Moore.

I have great doubt as to whether *P. bromus* can be separated from *P. philippina*. Leech's plate, which seems to represent a female and not a male, as stated, is indistinguishable from a female of *philippina*, from the Philippines, which I received from Dr. Staudinger. Semper, however, states that *philippina* never has a transparent spot in the middle cell of the fore wing, whilst Leech's plate and one of my specimens show two.—H. J. E.

The fact remains that in *philippina* the cell-spots of the fore wing are wanting, or, at most, feebly developed, and the hind wing below is unspotted, and in *bromus* there are two well-developed cell-spots visible on the upperside of the fore wing, and the hind wing below bears a small pale spot near the middle of cell 2. We have not seen any intermediate specimens.

Parnara canaraica.

Parnara canaraica, Moore, P. Z. S. 1883, p. 534; Watson, Hesp. Ind. p. 42 (1891).

♂. Fore wing with eight white spots including two in the cell; hind wing above without markings; hind wing below with two discal white spots.

♀. Fore wing with ten pale spots, eight placed as in the male and two in cell 1 *a*—one punctiform next vein 2 near the middle, and one triangular next vein 1 *a* near the middle; hind wing above with three discal semi-diaphanous spots; hind wing below with four discal white spots and a fifth at the end of the cell.

Expanse 38–47 mm.

Hab. Canara (*Ward*).

We have not seen this species, which bears some resemblance to *P. bromus*, Leech; but that species has the two pale spots in cell 1 *a* of the fore wing above in both sexes similar to those found in the female of *P. canaraica*, and the latter species is well distinguished by the five white spots on the hind wing below.

! Parnara pagana.

Parnara pagana, de Nicéville, P. Z. S. 1887, p. 465, pl. xl. fig. 7, ♂; Watson, Hesp. Ind. p. 40 (1891).

All the specimens of this species in Elwes's collection have spots in cells 6, 7, and 8.

Hab. Sikkim (*Möller*); Pegu (*Doherty*); Tenasserim, Borneo (*coll. Stgr.*); Selesseh, Sumatra (*in coll. Rothschild*).

! Parnara moolata. (Plate XXVI. figs. 86, *a*, *b*, *c*.)

Hesperia moolata, Moore, P. Z. S. 1878, p. 843.
Pamphila dravida, Mabille, Pet. Nouv. ii. p. 242 (1878).
Baoris moolata, Distant, Rhop. Mal. p. 379, pl. xxxiv. fig. 10, ♂ (1886).
Parnara moolata, Watson, Hesp. Ind. p. 42 (1891).
Parnara cahira, Semper, Sehmett. Philipp. p. 298, *sec. spec. comm.* (*nec* Moore).
Caltoris onchisa, ♀, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 323, *sec. spec. typ.*

Hab. Khasia (*Hamilton*); Perak, Pulo Laut (*Doherty*); West Java (*coll. Snellen*); Philippines (*Semper*); Palawan, Kina Balu, Borneo (*Staudinger*); Selesseh, Sumatra (*in coll. Rothschild*).

! Parnara aurociliata, n. sp. (Plate XXI. fig. 23, ♂; Plate XXVI. figs. 87, *a*, *b*, *c*.)

A species at once distinguished by its bright yellow fringes.

♂. Upperside deep warm brown : fore wing above with seven yellowish-white hyaline spots—two in the cell, of which the upper is the smaller, one in each of cells 2, 3, 4, 6, and 7, the three last-named punctiform, and a small yellowish-white spot next vein 1 *a* near the middle. Underside clear rich brown, somewhat darker in the basal region of the fore wing ; pale spots as on the upperside, but the spot in cell 1 *a* suffused. Fringes bright chrome-yellow, brown next cell 7 of the fore wing and cells 4–7 of the hind wing, the short scales brown throughout. The punctiform hyaline spots on the fore wing have a tendency to disappear.

Expanse 45–48 mm.

Hab. Sikkim (*Möller*). Type in coll. Elwes.

We separate this species from *P. pagana* and *P. kumara* with some doubt, but the genitalia are different from those of both those species.

! Parnara cahira. (Plate XXI. fig. 25, ♀ ; Plate XXVII. figs. 91, *a*, *b*, *c*.)

Hesperia cahira, Moore, P. Z. S. 1877, p. 593, pl. lviii. fig. 8.
Parnara cahira, Watson, Hesp. Ind. p. 43.

Moore's figure above cited does not agree with his description. It is said by Wood-Mason and de Nicéville (Jour. As. Soc. Beng. 1881, p. 258) that the female of *oceia*, Hew., was described by Moore as that of his *cahira* ; but it does not appear certain that these authors examined the type of *cahira*.

Hab. East Pegu (*Doherty*); Andamans (*de Roepstorff*); Nias (*Modigliani*); China (*fide Staudinger*).

Mr. de Nicéville ("List of the Butterflies of Sumatra," Jour. As. Soc. Beng. 1895, p. 550) states that he has from Sumatra specimens which agree with Moore's figure and description of *cahira*, also specimens which agree with Moore's description and

Elwes's woodcut of *austeni*, also specimens agreeing with Moore's description of *moolata*, and specimens agreeing with Moore's figure and description of *kumara*; and he goes on to say that all his Sumatran specimens appear to him to represent one species, and that it may be subsequently found on an examination of the prehensores of the male that some of these species may be valid. We give below a table of characters drawn from the male genitalia sufficient for the separation of these species by any person of moderate experience in the examination of such objects. The figures will assist in the elucidation of these characters.

A. Lower distal angle of the lower lobe of clasp produced much beyond the upper angle in a long nearly straight lobe; the upper distal angle produced into a recurved lobe . . . . . *moolata.*

B. Lower distal angle of the lower lobe of clasp rounded, not produced.

a. The two lobes forming the apex of the tegumen (seen from beneath) broad, flat, and subtruncate, their apices in the vertical aspect triangular . . . . . *austeni.*

b. The two lobes forming the apex of the tegumen (seen from beneath) narrow, pointed, and separate at the apex . . . . . *kumara.*

c. The two lobes forming the apex of the tegumen (seen from beneath) rather broad, curved, and connivent at the apex . . . . . *cahira.*

We also repeat here the external characters by which these four species may be distinguished *inter se*:—

Males.

1 (2). Fore wing without cell-spots, or if one is present it is placed next the subcostal; no white spot near the middle of vein 1 *a* . . . . . *kumara.*

2 (1). Fore wing with one or two cell-spots; if there is only one it is placed next the median.

3 (4). Fore wing above with a white spot, sometimes reduced to a point, near the middle of vein 1 *a*. Fore wing below with a suffused blackish discal patch from the base to the middle; the pale spot near the middle of cell 1 *a* distinct, suffused. Hind wing below ochreous brown . . . . . *cahira.*

4 (3). No white spot near the middle of vein 1 *a* on the fore wing above.

5 (6). Underside: apical region of the fore wing paler than the disc of the hind wing, the latter deep warm (vinous) brown. Lower distal angle of the lower lobe of the clasp much produced . . . . . *moolata.*

6 (5). Underside: apical region of the fore wing concolorous with the disc of the hind wing, the latter reddish yellow-brown. Lower distal angle of the lower lobe of the clasp rounded . . . . . *austeni.*

With regard to the females of these species an exact knowledge can only be obtained from specimens taken *in cop.*, but no real difficulty arises except as to the females of

P. kumara and *P. austeni*. Judging from the material in coll. Elwes, it appears probable that of those females in which the cell-spots are absent from the fore wing, those which have a white point in cell 1 *a* near the middle of vein 2 should be referred to *P. austeni*, and those in which this spot is wanting to *P. kumara*. The female of *P. moolata* differs from the male in having a white spot near the middle of vein 1 *a* in the fore wing, and the female of *P. cahira* does not differ from its male in the number of white spots on the fore wing.

! Parnara robusta, n. sp. (Plate XXI. fig. 19, ♂ ; Plate XXVII. figs. 88, *a*, *b*, *c*.)

♂. Differs from *P. cahira* in its larger size, the want of a large suffused blackish patch on the disc and a pale suffused spot near the middle of cell 1 *a* on the fore wing below, the browner and less ochreous colour of the hind wing below, and the clasp-form, as may be seen from the figures.

Expanse 46 mm.

Hab. Sangir (*Doherty*).

Described from a single specimen in coll. Elwes.

! Parnara austeni. (Plate XXVII. figs. 89, *a*, *b*, *c*.)

Baoris austeni, Moore, P. Z. S. 1883, p. 533.

Parnara austeni, Elwes, Trans. Ent. Soc. Lond. 1888, p. 448, fig. 3 ; Leech, Butt. China &c. p. 613, pl. xlii. fig. 7, ♂ (1894) ; Watson, Hesp. Ind. p. 43 (1891).

Caltoris onchisa, ♂, Swinhoe, Trans. Ent. Soc. Lond. 1893, p. 323, *sec. spec. typ.*

The female of this species has no pale spots in the cell of the fore wing, a character which it shares with the females of *P. plebeia*, *P. kumara*, and *P. rhypara*.

Hab. Sikkim (*Möller*) ; Khasia (*Hamilton*) ; Coonoor, Nilgiris (*Davison*, *Hampson*) ; Ceylon (*Green*) ; Andamans (*de Roepstorff*) ; Kweichow, China (*coll. Leech*).

We are indebted to Col. Swinhoe for the loan of his types of *Caltoris onchisa* and permission to dissect the genitalia of the male. Having availed ourselves of this permission we are satisfied that the male is *P. austeni* ; the female specimen, however, belongs, as before pointed out, to *P. moolata*. The pale subapical fascia on the fore wing below in the specimens appears to us to be the result of accident rather than normal wing-pattern.

! Parnara conjuncta. (Plate XXVII. figs. 92, *a*, *b*, *c*.)

Goniloba conjuncta, Herrich-Schäffer, Prod. Syst. Lep. iii. p. 75 (1869), *fide* Snellen.

Gegenes javana, Mabille, Bull. Soc. Zool. Fr. 1877, p. 232.

Hesperia narooa, Moore, P. Z. S. 1878, p. 687, pl. xlv. fig. 4.

Parnara narooa, Moore, Lep. Cey. i. p. 167, pl. lxix. figs. 3 *a*, *b* (1881) ; Watson, Hesp. Ind. p. 39 (1891).

Baoris narooa, Distant, Rhop. Mal. p. 380, pl. xxxiv. fig. 12, ♀ (1886).

Though we have no specimens from India or Ceylon, yet we think the plate in 'Lep. Ceylon' sufficiently identifies the species, which has been hitherto known as *narooa*, Moore.

Hab. Java (*Piepers*); Nias (*Modigliani*); Perak (*Doherty*); Kina Balu (*Waterstradt*); Sumatra (*in coll. Stgr.*); Philippines (*Semper*).

! Parnara assamensis.

Parnara assamensis, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1882, p. 65; id. op. cit. 1886, p. 382, pl. xviii. figs. 5, 5 *a*, ♂, pl. xvii. figs. 7, 7*a*, ♀; Watson, Hesp. Ind. p. 37 (1891).

Hab. Sikkim (*Elwes*); Khasia (*Hamilton*); Nagas (*Doherty*).

! Parnara guttatus. (Plate XXVI. fig. 76).

Eudamus guttatus, Bremer & Grey, Schmett. N. China's, p. 10, pl. iii. fig. 2 (1853).
Goniloba guttatus, Ménétriés, Cat. Mus. Petr. Lep. i. pl. v. fig. 4 (1855).
Hesperia fortunei, Felder, Verh. zool.-bot. Ges. Wien, xii. p. 489 (1862); id. Reise Nov., Lep. pl. lxxii. fig. 11 (1866).
Pamphila mangala, Moore, P. Z. S. 1865, p. 792.
Hesperia bada, Moore, P. Z. S. 1878, p. 688.
Parnara bada, Moore, Lep. Cey. i. p. 167, pl. lxx. figs. 2, 2 *a* (1881).
Hesperia nondoa, Plötz, Stett. ent. Zeit. 1886, p. 97, *fide* Fruhstorfer.
Parnara guttata, Elwes, Trans. Ent. Soc. Lond. 1888, p. 445; Watson, Hesp. Ind. p. 34 (1891).

Hab. India, generally distributed, China, Japan (*Leech*, *Pryer*); Liu Kiu Islands (*Pryer*); Perak, Pulo Laut, Bali (*Doherty*); Java (*Fruhstorfer*); Kina Balu, Borneo (*Waterstradt*).

We have two females from Java sent by Herr Fruhstorfer under the name *Hesperia nondoa*; these correspond with males from Pulo Laut and Perak which are undoubtedly *P. guttatus*; the underside of all these specimens is darker and the arrangement of the pale spots on the hind wing is less evidently rectilinear than is usual in *P. guttatus*, and the cell-spots in the fore wing are entirely wanting. Further, we have received seven specimens from the island of Bali, collected by Doherty, which vary very much in the number and position of the spots on the hind wing, one of them being without these spots either above or below. We were inclined to treat these specimens as belonging to a distinct species, but an examination of the genitalia goes to show that they are only extreme forms of *guttatus*.

! Parnara contigua. (Plate XXVI. figs. 78, 78 *a*.)

Pamphila contigua, Mabille, Bull. Soc. Zool. Fr. 1877, p. 232 (note).
Hesperia toona, Moore, P. Z. S. 1878, p. 689, ♂.
Parnara toona, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 383, ♀; Watson, Hesp. Ind. p. 45.
Pamphila scortea, Mabille, Ann. Soc. Ent. Belg. xxxvii. p. 53 (1893).

This species has wrongly been placed as a synonym of *P. pellucida*, from which it differs

in the darker ground-colour and smaller spots of the hind wing below, and also in the form of the male genitalia. We have examined Mabille's types of *contigua* and *scortea*.

Hab. Sikkim (*Möller*); Khasia (*Elwes*); Nagas, Pegu, Perak, Pulo Laut, Sambawa, Bali (*Doherty*); Hong Kong (*Pryer*).

! Parnara eltola. (Plate XXVI. figs. 79, *a*, *b*.)

Hesperia eltola, Hewitson, Ex. Butt. iv., *Hesp.* pl. iv. fig. 40 (1869).
Parnara eltola, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 384, pl. xviii. figs. 6, 6 *a*, ♂; Watson, Hesp. Ind. p. 45 (1891); Leech, Butt. China &c. p. 613 (1894).

This species is distinguished from the next by the yellower colour of the pale spots on the upperside, which is most marked in the males, and by having the apex of the œdeagus, as seen from below, produced on the left side into a long sharp horn, and the right side spinose.

Hab. Sikkim (*Elwes*); Nagas (*Doherty*).

! Parnara discreta, n. sp. (Plate XXI. fig. 16, ♂; Plate XXVI. figs. 80, *a*, *b*.)

Closely allied to *P. eltola*, Hew., from which it differs in the following particulars:—

♂. Pale spots on fore wing above sordid white, that in cell 2 shorter in proportion, its inner and outer edges nearly parallel; ground-colour of the underside and the fringes, especially those of the hind wing, paler. Apex of the œdeagus produced into two subequal spinose horns, side lobes of the tegumen narrow and simple.

♀. Pale spot in cell 2 of fore wing comparatively shorter; underside, especially of hind wing, paler.

Hab. Khasias (*Elwes*); Sikkim (*Möller*); Tenasserim (*Bingham*); E. Pegu, Bernardmyo, Burmah (*Doherty*).

This species may be distinguished from *P. eltola* (with which it is probably mixed in collections) at first sight by the purer white of the pale spots on the upperside; and the difference in the male genitalia affords conclusive evidence of its distinctness.

Parnara pellucida. (Plate XXVI. figs. 77, 77 *a*.)

Pamphila pellucida, Murray, Ent. Mo. Mag. xi. p. 172 (1875).
Thymelicus pellucida, Staudinger, Rom. Mém. sur Lép. iii. p. 152, pl. viii. fig. 3 (1887).
Parnara pellucida, Leech, Butt. China &c. p. 611 (1894).

The ground-colour of the hind wing below is not sufficiently bright in Staudinger's figure above cited.

Hab. Japan (*Pryer*, *Leech*); Ussuri, Amurland (*Dörries*, *fide Stgr.*).

Parnara jansonis.

Pamphila jansonis, Butler, Cist. Ent. ii. p. 284 (1878).
Parnara jansonis, Leech, Butt. China &c. p. 612, pl. xlii. fig. 12, ♂ (1894).

Hab. Japan (*Pryer*).

Parnara bipunctata, n. sp. (Plate XIX. fig. 5, ♂.)

♂. Upperside: fore wing brown, heavily clothed with ochreous hair-scales towards the base; six sordid whitish hyaline spots—two remote in the cell, one large, pentagonal, in cell 2, one, smaller and subquadrate, in cell 3, and one, minute and punctiform, in each of cells 6 and 7; an elongate triangular yellow spot next vein 1 *a* beyond the middle: hind wing ochreous by reason of the hair-scales; the costa brown as far as vein 6, and the termen narrowly and suffusedly brown; two pale points on the disc, one near the middle of each of cells 2 and 3. Underside ochreous green, disc of the fore wing brown: fore wing with the pale spot next vein 1 *a* larger and more suffused than on the upperside, the other spots as on the upperside; hind wing with the two pale points as on the upperside. Fringes brown, becoming ochreous grey towards the tornus of each wing. Antennæ blackish, spotted with yellowish on the underside; club yellowish beneath. Second joint of palpi clothed with ochreous and black hairs intermixed. Body and legs ochreous brown.

Expanse 36½ mm.

Hab. Batchian.

Described from one specimen ex coll. Staudinger.

At first sight this species bears some resemblance to *P. contigua*, Mab., from which, however, it is abundantly distinct.

! Parnara colaca. (Plate XXVI. fig. 81.)

Hesperia colaca, Moore, P. Z. S. 1877, p. 594, pl. lviii. fig. 7.
Parnara colaca, Elwes, Trans. Ent. Soc. Lond. 1888, p. 446, fig. 1; Watson, Hesp. Ind. p. 36 (1891).
Parnara cingala, Moore, Lep. Cey. i. p. 167, pl. lxx. figs. 3 *a*, 3 *b* (1881).

Hab. Sikkim (*Möller*); Ranchi (*Irvine*); Bangalore (*Minchin*); Trichinopoly (*Castets*); Andamans, Bali (*Doherty*); Nias (*Modigliani*); Ceylon (*fide Moore*).

! Parnara bevani. (Plate XXVI. fig. 82.)

Hesperia bevani, Moore, P. Z. S. 1878, p. 688.
Parnara beavani, Elwes, Trans. Ent. Soc. Lond. 1888, p. 447, fig. 2.
Parnara bevani, Watson, Hesp. Ind. p. 36 (1891).
Parnara thyone, Leech, Butt. China &c. p. 610, pl. xlii. fig. 4, ♂ (1894).

A specimen of *P. thyone* from Moupin, presented by Mr. Leech, seems inseparable from *P. bevani*.

Hab. N.W. Himalayas (*Hocking, Young*); Sikkim, Khasias, Bombay (*Elwes*); Nagas (*Doherty*); Kina Balu (*Waterstradt, in coll. Stgr.*); Moupin, E. Tibet (*Kricheldorf*).

Parnara flexilis.

Isoteinon flexilis, Swinhoe, P. Z. S. 1885, p. 147, pl. ix. figs. 9, 10; Watson, Hesp. Ind. p. 85 (1891).

♀. Size of *P. colaca* or *P. bevani*. Upperside brown: fore wing with the hyaline spots small, two in the cell, one next the middle of vein 1 *a*, one in each of cells 2, 3, 6, 7, and 8, that in cell 4 only indicated on the underside. Hind wing below brown, clothed with grey scales so as to give the appearance of a dark subterminal band. Fringes brownish grey, the short scales whitish grey.

Hab. Poona.

These particulars are taken from the type specimen in the British Museum. This is, we think, a very doubtful species.

! Parnara zelleri.

Hesperia zelleri, Lederer, Verh. zool.-bot. Ges. Wien, 1855, p. 194.

A little known, though very distinct species, easily distinguished by the black-bordered pale spots on hind wing below.

Hab. Beyrout, Syria (*Zach*); Esmir, Busagha, near Tangier, Morocco (*Walker*).

! Parnara tulsi.

Parnara tulsi, de Nicéville, Jour. As. Soc. Beng. 1883, p. 86, pl. x. fig. 1, ♂; Watson, Hesp. Ind. p. 44 (1891).
Hesperia jolanda, Plötz, Stett. ent. Zeit. xlvii. p. 95 (1886) (*fide* Mabille).

Hab. Sikkim (*Möller*); Java (*Fruhstorfer*).

Though this species does not seem to have been found in any part of Burmah or the Malay peninsula, I have a specimen from Java which is identical.

! Parnara cærulescens.

Pamphila cærulescens, Mabille, Ann. Soc. Ent. Fr. 1876, p. lv.
Parnara cærulescens, Leech, Butt. China &c. p. 615, pl. xlii. fig. 9, ♂.

Hab. Wa-ssu-kow, Ta-tsien-lo (*ex coll. Leech & Oberthür*).

! Parnara pugnans.

Parnara pugnans, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1891, p. 384, pl. G. fig. 30, ♀.

Hab. Pulo Laut (*Doherty*); Nias (*Modigliani*).

Parnara hasoroides, n. sp. (Plate XXI. fig. 11, ♂.)

♂ ♀. Upperside brown. Underside brown: the hind wing with a broad white band from the middle of the costa to the dorsum just before the tornus, but interrupted in cell 1 *b*; the longer portion of this band is distinctly contracted at each end in the male, less distinctly so in the female. Antennæ brown, the club yellowish beneath.

Fringes brown. Body above brown. Clothing of the second joint of palpi, breast, and legs dark grey. Abdomen beneath brown.

Expanse 45–48 mm.

Hab. Halmaheira; Batchian (*ex coll. Stgr.*).

Described from one pair ex coll. Staudinger.

The band on the hind wing below resembles that found in *Hasora hurama*, Butl., save that in the latter it is not interrupted in cell 1 *b*.

PARNARA UMA.

Parnara uma, de Nicéville, Jour. As. Soc. Beng. 1888, p. 592, pl. xiii. fig. 9, ♀; Watson, Hesp. Ind. p. 38 (1891).

♀. Upperside brown: fore wing with a geminate cell-spot and five others, one in each of cells 2, 3, 6, 7, and 8, white. Hind wing below vinous brown, with a broad silvery-white subcostal streak, adjoining at its apex the last of a postmedian series of silvery-white subquadrate spots which commences in cell 1 *b*.

Hab. Karen hills, Burma.

The single specimen from which this species was described appears to be still unique.

PARNARA PHILOTAS.

Baoris (*Parnara*) *philotas*, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 402, pl. Q. fig. 60,

Upperside brown: fore wing and hind wing each with two hyaline white spots one in each of cells 2 and 3. Underside "thickly covered with 'old-gold' coloured scales"; dorsum of the fore wing broadly dark purplish brown; pale spots as on the upperside.

Expanse 30 mm.

Hab. Travancore (*Ferguson*); North Canara (*Bell*).

We doubt whether this insect belongs to the genus *Parnara*. The figure shows the colour of the underside to be dull greenish ochreous.

PARNARA UNICOLOR.

Baoris unicolor, Distant, Rhop. Mal. p. 381, pl. xxxv. fig. 11, ♂ (1886).

Hab. Malacca (*Eichhorn*)

Through the kindness of Dr. Staudinger we have had the opportunity of making a critical examination of the unique type of this species. The specimen is a male and a true *Parnara* in venation and in the number and position of the tibial spurs. At the base of the fore wing above, between the dorsum and the submedian, there is a long raised space about equal in length to one-fifth of the dorsum; this is probably a sex-mark and confined to the male. In the fore wing the first median segment is about two and a half times as long as the second, which is a little more than twice as long as

the third; the transverse vein is oblique, and vein 5 arises much nearer 4 than 6 and curves upwards from its base. The palpi and the apices of the antennæ are now wanting, but there is one hind leg still left which has two pairs of spurs in the usual position. The specimen is in a worn condition.

Mr. de Nicéville named this species, which he had not seen, as the type of his genus *Idmon* (*vide* p. 198, *ante*), but his generic description does not apply to it.

PARNARA DISTICTUS.

Baoris distictus, Holland, Trans. Amer. Ent. Soc. xiv. p. 123, pl. ii. fig. 4 (1887).

Hab. Hainan (*Henry, fide Holland*).

"*Male*. Upper surface uniformly olive-brown, cilia pale cinereous. Primaries with two small, triangular, semi-diaphanous white spots beyond the middle of the wing and between the submedian nervules. Underside lighter than the upper, with a hoary lustre, especially on the posteriors. A few scarcely visible light scaleless spots may be detected adjacent to the two white spots of the primaries, which reappear on the underside. A curved submarginal row of obscure brown spots is found upon the secondaries. Underside of palpi and head white. Expanse of wings $1\frac{3}{8}$ inches. Type in coll. Holland."

Not having seen or been able to identify this species, we transcribe the original description. Its distinctive characters appear to be a subterminal series of obscure brown spots on the hind wing below, and the "underside of palpi and head white."

GEGENES.

Gegenes, Hübn. Verz. p. 107 (1816); Watson, P. Z. S. 1893, p. 104. Type *pygmæus*, Hübn.
Philoodus, Rambur, Faun. Ent. Andal. ii. p. 308 (1840). Type *nostrodamus*, Fab.

A genus resuscitated by Watson for the reception of the *Papilio nostrodamus* of Fabricius and two or three other species; it would be more convenient to treat it as a section of *Parnara*, in which it would be well distinguished by its short antennæ.

Antennæ about one-third as long as the costa; club elongate ovate; apiculus scarcely evident. Fore wing with vein 2 from the half-length of the cell in both sexes, vein 5 much nearer 4 than 6. Hind wing feebly excavated between veins 1 *b* and 2, vein 5 obsolete, vein 2 from apical fourth of cell. Tibial epiphysis present. Hind tibiæ with two pairs of spurs.

GEGENES NOSTRODAMUS.

Popilio nostrodamus, Fabricius, Ent. Syst. iii. p. 323 (1793).
Papilio pygmæus, Hübner, Eur. Schmett. i. figs. 458–460 (1798–1803).
Hesperia karsana, Moore, P. Z. S. 1874, p. 576, pl. lxvii. fig. 6.
Chopra nostrodamus, Watson, Hesp. Ind. p. 33 (1891).

Hab. Gibraltar (*Walker*); Biskra, Algeria (*Elwes*); Beyrout (*Zach*); Quetta (*Swinhoe*); Samarkand (*Haberhauer*); N.W. Himalaya (*Young*).

ERYNNIS.

Erynnis, Schrank, Fauna Boica, ii. p. 157 (1801); Watson, P. Z. S. 1893, p. 99. Type *comma*, Linn.
Ocytes, Scudder, Syst. Rev. p. 55 (1872). Type *metea*, Scudd.

The species of this genus are best known by their resemblance to the *Papilio comma* of Linnæus. Antennæ about half as long as the costa; club abrupt, subovoid; apiculus minute. Third joint of palpi almost concealed, second joint densely scaled. *Erynnis comma*, Linn., varies much in the details of the wing-pattern, but the essential pattern on the hind wing below remains the same, even in those specimens which at first sight seem to be the most distinct. Several American forms of this species have been investigated in great detail by Scudder (Mem. Bost. Soc. Nat. Hist. ii. pp. 341–353, pls. x., xi.), but the differences in the male genitalia which he figures appear to us, for the most part, mere differences of degree.

! ERYNNIS COMMA.

Papilio comma, Linneus, Faun. Suec. p. 285 (1761); Esper, Schmett. i. pl. xxiii. figs. 1 *a*, *b* (1777); Hübn. Eur. Schmett. i. figs. 479–481 (1798–1803).

Hab. Europe to Amurland.

The following varieties of *E. comma* may be treated as more or less constant local races, but we have not seen sufficient examples to enable us to form an opinion as to how far their distinctions are really constant.

! ERYNNIS COMMA, var. CATENA.

Hesperia comma, var. *catena*, Staudinger, Stett. ent. Zeit. 1861, p. 357.

Hab. Lapland (*Staudinger*).

ERYNNIS COMMA, var. DIMILA.

Pamphila dimila, Moore, P. Z. S. 1874, p. 576; de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1892, p. 355, pl. J. fig. 9, ♀; Watson, Hesp. Ind. p. 160.
Erynnis comma, var. *dimila*, Leech, Butt. China, &c. p. 595, pl. xli. fig. 12, ♂ (1892–94).
Erynnis dimila, de Nicéville, Jour. As. Soc. Beng. 1894, p. 52, pl. i. fig. 7,

Hab. N.W. Himalayas (*Hellard*); Ta-tsien-lo (*fide Leech*).

! ERYNNIS COMMA, var. FLORINDA.

Pamphila florinda, Butler, Cist. Ent. ii. p. 285 (1878).
Erynnis comma, var. *florinda*, Leech, Butt. China, &c. p. 594, pl. xli. fig. 17, ♂ (1892–94).

Hab. Japan (*Pryer*).

I have no specimens of *comma* from Amurland, and therefore cannot say whether the form described by Staudinger [Rom. Mém. sur Lép. vi. p. 211 (1892)] as var. *repugnans* is a well-marked form or not; but I think that when he speaks of *florinda* as more probably a var. of *sylvanus* and not of *comma* he cannot have seen the true *florinda*, which is clearly more nearly allied to *comma* than to *sylvanus*, which also occurs in Japan.—H. J. E.

ADOPÆA.

Adopæa, Billberg, Enum. Ins. p. 81 (1820); Watson, P. Z. S. 1893, p. 98. Type *thaumas*, Hufn.
Pelion, Kirby, List Brit. Rhop. (1858). Type *thaumas*, Hufn.

A small group of species associated together on account of their resemblance, greater or less in degree, to the *Papilio thaumas* of Hufnagel (*linea*, Wien. Verz.). Antennæ short, generally less than half as long as the costa; club elongate, gradual, not apiculate. Third joint of palpi acicular, suberect, nearly as long as half the diameter of the eye.

The species are distinguished as follows:—

Males.

1 (10). Veins of hind wing below concolorous.
2 (9). With a sex-mark on fore wing above.
3 (8). Sex-mark continuous, leaving the extreme base of cell 2 free.
4 (5). Fore wing below with the black patch in the base of cell 1 *a* sharply defined and confined to the basal third of the wing . . . . . *thaumas*, Hufn.
5 (4). Fore wing below with the black patch in the base of cell 1 *a* spreading along the dorsum or almost obsolete. Hind wing below with no distinct stripe of the same colour as the disc of fore wing in cell 1 *b*.
6 (7). Costa of the fore wing one-third longer than the dorsum. Hind wing below and apical area of fore wing below sordid greenish yellow, disc of fore wing below rusty yellow . . . . . *hyrax*, Led.
7 (6). Costa of the fore wing one-fourth longer than the dorsum. Hind wing below and fore wing below, except a broad space along the dorsum, rust-yellow or greenish yellow . . . . . *actæon*, Rott.
8 (3). Sex-mark interrupted, one end of the long piece filling the base of cell 2. *lineola*, Ochs.
9 (2). No sex-mark on fore wing above . . . . . *stigma*, Stgr.
10 (1). Veins of hind wing below black.
11 (16). Sex-mark wanting.
12 (15). Fore wing above: the dark outline of veins 6–10 more or less spreading and confluent near their bases to form a dark patch beyond the end of the cell, basal third of the wing more or less dark.
13 (14). Upperside without purple reflection; veins on the underside less broadly black . . . . . *sylvatica*, Brem.
14 (13). Upperside with a purple reflection; veins on the underside more broadly black . . . . . *tenebrosa*, Leech.
15 (12). Fore wing above: dark outline of veins 6–10 free throughout, basal third of the wing concolorous . . . . . *nervulata*, Mab.
16 (11). Sex-mark present. Fore wing above: basal third concolorous, dark marginal band narrow . . . . . *leonina*, Butl.

! ADOPÆA THAUMAS.

Papilio thaumas, Hufnagel, Berl. Mag. ii. p. 62 (1776); Esper, Schmett. i. 1, pl. xxxvi. figs. 2, 3 (1778?), i. 2, pl. xcviii. figs. 5–10 (1790?).
Papilio linea, Wien. Verz. p. 160 (1776); Hübner, Eur. Schmett. i. figs. 485–487 (1798–1803).
♀. *Papilio venula*, Hübner, Eur. Schmett. i. figs. 666–669 (1803–18).

Hab. Europe to Asia Minor.

! Adopæa hyrax.

Hesperia hyrax, Lederer, Wien. ent. Mon. v. p. 149, pl. i. fig. 6 (1861).

Hab. Amasia, Asia Minor, Syria.

! Adopæa actæon.

Papilio acteon, Rottemburg, Naturf. vi. p. 30 (1775); Esper, Schmett. i. 1, pl. xxxvi. fig. 4 (1778?); Hübner, Eur. Schmett. i. figs. 488–490 (1798–1803).

Hab. S. and C. Europe; Asia Minor; N. Africa; Canaries (*Leech*); Samarkand (*Haberhauer*).

Adopæa hamza.

Hesperia hamza, Oberthür, Études d'Ent. i. p. 28, pl. iii. figs. 2 *a–c* (1876).

Very near to *A. actæon*, from which it appears to be best distinguished by the more fulvous colour of the upperside and the want of the suffused pale curved macular band which is seen just beyond the end of the cell on the fore wing of *A. actæon*.

Hab. Oran (*Oberthür*).

We have not any specimens which we can identify from Oberthür's plate. A male from Lambessa in the Province of Constantine appears to us to be inseparable from *A. lineola*.

! Adopæa lineola.

Papilio lineola, Ochsenheimer, Schmett. Ent. i. 2, p. 230 (1808).
Papilio virgula, Hübner, Eur. Schmett. i. figs. 660–663 (1803–18).

Hab. Europe to Amurland; Algeria (*Oberthür*).

! Adopæa stigma.

Thymelicus (*Hesperia*) *stigma*, Staudinger, Stett. ent. Zeit. xlvii. p. 252 (1886).

This species belongs to the *sylvatica* group, but the veins on the underside are not black; the fore wing above has the dark terminal band sharply defined, the basal third concolorous, and the transverse vein rather conspicuously dark.

Hab. Turkestan.

! Adopæa sylvatica.

Pamphila sylvatica, Bremer, Bull. Acad. Petr. iii. p. 474 (1861); id. Lep. Ost-Sib. p. 34, pl. iii. fig. 10 (1864).
Adopæa sylvatica, Leech, Butt. China &c. p. 591, pl. xl. figs. 5 ♂, 8 ♀ (1892–94).

Hab. Amurland, Japan (*Pryer*); Korea (*Leech*).

! Adopæa tenebrosa.

Adopæa tenebrosa, Leech, Butt. China &c. p. 591, pl. xl. figs. 6 ♂, 9 ♀ (1892–94).

The difference between this species and *A. sylvatica* are but trifling, and the genitalia

afford no distinctive characters; as, however, it can be separated by its darker colour from *A. sylvatica*, we retain the name for the Chinese form.

Hab. Kiukiang (*Pratt*).

ADOPÆA NERVULATA.

Pamphila nervulata, Mabille, Ann. Soc. Ent. Fr. 1876, p. lvi.
Adopæa nervulata, Leech, Butt. China &c. p. 592, pl. xl. fig. 3, ♂ (1892–94).

The insect here dealt with is that described and figured by Leech; whether it is the true *nervulata* of Mabille remains doubtful, since the specimens do not possess the "striga anticarum sexuali nigra filiformi" mentioned in the original description.

Hab. Moupin (*fide Mabille*); Ta-Chien-lu, Wa-ssu-kow (*fide Leech*).

! ADOPÆA LEONINA.

Pamphila leonina, Butler, Cist. Ent. ii. p. 286 (1878).
Thymelicus leonina, Staudinger, Mém. sur Lép. iii. p. 151, pl. viii. fig. 2, ♂ (1887), vi. p. 210 (1892).
Adopæa leonina, Leech, Butt. China &c. p. 592, pl. xl. figs. 1 & 4 ♂, 2 ♀ (1892–94).

Hab. Japan (*Pryer*); Amurland (*fide Staudinger*).

ADOPÆA ASTIGMATA, Leech.

Adopæa leonina, var. *astigmata*, Leech, Butt. China &c. p. 593, pl. xl. fig. 7, ♂ (1892–94).

Differs from typical *leonina* in wanting a sex-mark in the male and being rather more suffused with black. The male genitalia are similar to those of *A. leonina*, but so also are those of *A. tenebrosa*.

Hab. Chang-yang, C. China (*Pratt*).

ISMENE.

Ismene, Swainson, Zool. Ill. i. pl. xvi. (1820–21); Moore, Lep. Cey. i. p. 157 (1881); Watson, Hesp. Ind. p. 9 (1891); id. P. Z. S. 1893, p. 125, pl. i. figs. 14–16, pl. ii. figs. 11, 12, pl. iii. fig. 18.

This genus and the four which succeed it form a natural group well distinguished by the form of the palpi, which have the second joint appressed and densely scaled, and the third joint porrect, long, and slender, about half as long as the diameter of the eye. In most of the species of this genus the club of the antennæ is as long as or longer than the shaft. Vein 5 in the fore wing straight, its base equidistant from veins 4 and 6 or (in *mahintha* and *ionis*) a trifle nearer to vein 6 than to vein 4. Vein 3 of hind wing arising close to the end of the cell.

The species known to us may be distinguished as follows:—

Males.

1 (26). Fringe of hind wing orange-red, more particularly near the tornus.
2 (17). Fore wing above with a sex-mark.
3 (14). Sex-mark deep black, sharply defined.
4 (11). Vein 1 *a* of fore wing distorted next the sex-mark.
5 (10). Hind wing: vein 6 approaching vein 5 in a deep curve.
6 (9). Costa of the hind wing folded over on to the upper surface of the apex.
7 (8). Expanse 48 mm. Long hairs clothing disc of thorax and base of hind wing above brilliant greenish blue . . . . . *œdipodea*, Sw.
8 (7). Expanse 66 mm. Long hairs clothing disc of thorax and base of hind wing above brown . . . . . *œdipus*, Stgr.
9 (6). Costa of the hind wing not folded over on to the upper surface of the apex . . . . . *ataphus*, Wats.
10 (5). Hind wing: vein 6 straight . . . . . *tuckeri*, n. sp.
11 (4). Vein 1 *a* of fore wing straight.
12 (13). Hind wing below: no straight pale band from the costa. Sex-mark running from the middle of vein 1 *a* to the base of vein 3, and composed of four short irregular stripes, of which the two in cell 1 *a* are confluent . . . . . *mahintha*, Moore.
13 (12). Hind wing below with a whitish postmedian band running straight from the apical third of the costa to the apical fourth of vein 1 *b*. Sex-mark continuous, more than twice as high as wide, running from the middle of vein 1 *a* to the base of vein 3. *ionis*, de Nicév.
14 (3). Sex-mark fuliginous, suffused.
15 (16). Fore wing below with a sharply defined whitish spot in the cell near its apical third, and a curved series of suffused pale spots, one each in cells 4–8 . . . . . *jaina*, Moore.
16 (15). No sharply defined whitish spot in the cell of fore wing below, nor subapical curved series of suffused pale spots . . . . . *fergusonii*, de Nicév.
17 (2). Sex-mark wanting.
18 (23). Hind wing below not green, with black longitudinal lines.
19 (22). Clothing of the front of palpi orange-yellow.
20 (21). Expanse 70 mm. Cell 6 of hind wing above concolorous . . . *etelka*, Hew.
21 (20). Expanse 57 mm. Cell 6 of hind wing above whitish, except at the base and apex . . . . . *harisa*, Moore.
22 (19). Clothing of front of palpi grey. Cell 6 of hind wing above concolorous . . . . . *anadi*, de Nicév.
23 (18). Hind wing below emerald-green with fine black longitudinal lines, for the most part two in each cell, equidistant from each other and from the veins.
24 (25). Fore wing above plain brown, except a pale streak next the basal half of the costa . . . . . *vasutana*, Moore.

25 (24). Fore wing above fulvous, passing into brown beyond the middle; basal half of veins 1 *a*, 2, and 3 (except the extreme base of vein 1 *a*) broadly margined with black, the confluent bases of veins 7–11 also black . . . . . *septentrionis*, Feld.

26 (1). No orange-red in fringe of hind wing.

27 (32). Hind below green or whitish green, the veins broadly bordered with black. Tibial pencil yellow or pale.

28 (29). Hind wing below uniformly striped with black and green throughout . . . . . *amara*, Moore.

29 (28). Hind wing with a broad pale stripe through the cell.

30 (31). This stripe divided beyond the transverse vein by the dark borders of vein 5. Fore wing above with the basal half of cell 2 grey-brown, a little paler than the apical half . . . . . *gomata*, Moore.

31 (30). This stripe continued to the termen, the dark borders to vein 5 only indicated at the extreme apex. Fore wing above with the basal half of cell 2 sordid yellowish white . . . . . *lara*, Leech.

32 (27). Hind wing below pale brown. Tibial pencil dark brown . . . *aquilina*, Speyer.

! Ismene œdipodea.

Ismene œdipodea, Swainson, Zool. Ill. i. pl. xvi. (1820–21).

We have only a single male of this species from Java, and rely on Mr. Watson for its identification with the description of Swainson.

Hab. Java (*Piepers*); Sumatra (*fide de Nicéville*); Palawan (*in coll. Rothschild*).

! Ismene œdipus.

Ismene œdipus, Staudinger, MS.

We have a single specimen of this species sent by Dr. Staudinger with the name of *œdipus*. The species does not appear to have been described, but it is distinguished from *œdipodea* by its much larger size, and the fact that the long hairs clothing the centre of the thorax and the base of the hind wing above are brown instead of greenish blue.

Expanse 66 mm.

Hab. Sula Island (*fide Staudinger*).

! Ismene atapiius.

Ismene ataphus, Watson, P. Z. S. 1893, p. 126.

Ismene œdipodea, Moore, Lep. Cey. i. p. 158, pl. lxiv. figs. 2*a*, *b* (1881); Watson, Hesp. Ind. p. 10 (1891).

The female of this species resembles the male, but wants the black patch near the base of the fore wing above, and the long hairs clothing the base of the wings show, in certain aspects, a brilliant greenish-blue colour.

Hab. Kangra (*Hocking*); Sikkim (*Möller*); Khasia (*Hamilton*); E. Pegu (*Doherty*).

! Ismene tuckeri, n. sp. (Plate XX. fig. 4, ♂.)

♂. Not distinguishable on the upperside from the male of *I. ataphus*, Wats., but differs from that species in the following particulars:—Fore wing below having the yellow tinge replaced by greenish. Hind wing, vein 8 evenly curved throughout, vein 6 straight; underside pale greenish brown with pale green streaks very narrowly edged with purple, the latter placed as follows: two in cell 1 *b*, one in each of cells 2 to 8, and one near the middle of the cell.

Expanse 44 mm.

Hab. Tavoy (*Tucker*).

Described from one example in coll. Elwes, taken in Feb. 1892.

! Ismene jaina.

Ismene jaina, Moore, P. Z. S. 1865, p. 782; Watson, Hesp. Ind. p. 10 (1891).

Hab. Sikkim (*Möller*); Khasia (*Hamilton*); E. Pegu (*Doherty*).

! Ismene fergusonii.

Ismene fergusonii, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1892, p. 345, pl. J. fig. 6, ♂.

Hab. Nilgiri hills (*Hampson*); N. Canara (*coll. Swinhoe*).

Female resembling the male, save that the sex-mark is wanting and the long hairs clothing the disc of the thorax and the base of the wings are bluish grey.

! Ismene etelka.

Ismene etelka, Hewitson, Exot. Butt. iv., *Ismene*, figs. 14, 15 (1867).

This species is easily distinguished in the male from *I. fergusonii* by the absence of the sexual patch on the fore wing and the much deeper and more extended orange-red markings below. The female on the upperside is brown with a purple shade, passing into greenish blue towards the base of the wings; on the fore wing below there is a suffused postmedian macular pale band, and the disc of the wing has a deep purple shade.

Hab. Kina Balu (*Waterstradt*); Singapore (*coll. Staudinger*); Lawas, N. Borneo (*Everett*).

! Ismene harisa.

Ismene harisa, Moore, P. Z. S. 1865, p. 782.

Choaspes harisa, de Nicéville, Jour. As. Soc. Beng. 1883, p. 84, pl. x. fig. 8, ♂; Distant, Rhop. Mal. p. 373, pl. xxxiv. fig. 22, ♂ (1886); Watson, Hesp. Ind. p. 6 (1891).

Female brown above, with a metallic greenish-blue shade from the base of the wings,

but not covering the apical area of the fore wing or the terminal area of the hind wing.

Herr Snellen sent a female specimen from Java, not distinguishable from this species, with the name *consobrina*, Plötz.

Hab. Sikkim (*Möller*); Khasia (*Hamilton*); Nagas, Arjuno, Java (*Doherty*); Burmah (*Watson*); West Java (*Piepers*).

! Ismene anadi.

Choaspes anadi, de Nicéville, Jour. As. Soc. Beng. 1883, p. 83, pl. x. fig. 6, ♂; Watson, Hesp Ind. p. 7 (1891).

The female of this species is said to differ from the male only in being larger and darker, the upperside of the hind wing concolorous with the rest of the wing, not broadly pale ochreous as in the male; this is remarkable when we consider the close relationship of this species to *I. harisa*, which has a dissimilar female.

Hab. Sikkim (*Möller*); Khasia (*Hamilton*).

! Ismene vasutana.

Ismene vasutana, Moore, P. Z. S. 1865, p. 782.
Choaspes vasutana, Watson, Hesp. Ind. p. 8 (1891).

This species is remarkable amongst its congeners for the greater or less development of hyaline spots in the fore wing; the full complement of these is one in each of cells 2 and 3, but in the more usual state of the male that in cell 3 only is visible on the upperside, that in cell 2 being traceable on the underside only or wanting altogether; sometimes these spots are quite absent from the upperside and their presence is only indicated by a pale dot near the base of cell 3 on the underside.

It appears from Mr. de Nicéville's remarks (Jour. Bomb. Nat. Hist. Soc. 1895, p. 404) that a somewhat similar development of these pale spots occurs in *I. mahintha*, Moore.

The female is brown above, with a pale greyish-green shade from the base of the wings, passing into purple near the middle of the fore wing and about the apical third of the hind wing; the hyaline spots on the fore wing are well developed.

Hab. Sikkim (*Möller*); Nagas (*Doherty*).

! Ismene septentrionis.

Ismene septentrionis, Felder, Reise Nov., Lep. iii. p. 525, pl. lxxiii. fig. 3 (1867); Leech, Butt. China, &c. p. 636 (1894).
Ismene striata, Hewitson, Exot. Butt. iv., *Ismene*, pl. i. figs. 6, 7 (1867).

Hab. Shanghai (*Dr. Muirhead, fide Felder*); China (*fide Hewitson*); Siao-Lou (*ex coll. Oberthür*).

! Ismene mahintha.

Ismene mahintha, Moore, P. Z. S. 1874, p. 575, pl. xlvii. fig. 4, ♂ ; Watson, Hesp. Ind. p. 11 (1891).

A female of this species is recorded by Wood-Mason and de Nicéville (Jour. As. Soc. Beng. 1886, p. 378) as taken at Silcuri, Cachar, on 7th June ; but this sex does not appear to have been separately described and we have never seen it.

Hab. Bernardmyo, Burmah (*Doherty*).

! Ismene ionis.

Ismene ionis, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 403, pl. Q. fig. 61, ♂.

Hab. Sambawa (*Doherty*) ; West Java (*Fruhstorfer, fide de Nicéville*).

! Ismene amara.

Ismene amara, Moore, P. Z. S. 1865, p. 783.
Choaspes amara, Watson, Hesp. Ind. p. 8 (1891).

The female of this species usually closely resembles the male ; but a specimen from the Naga hills has the upperside a little darker than usual, and the veins of the fore wing bordered with dark purple, broadly for some distance from the base, the purple colour gradually narrowing and not reaching the termen.

Hab. Sikkim (*Möller*) ; Khasia (*Hamilton*) ; Nagas (*Doherty*).

! Ismene gomata.

Ismene gomata, Moore, P. Z. S. 1865, p. 783, ♂.
Ismene lorquini, Mabille, Bull. Soc. Ent. Fr. 1876, p. x ; id. Ann. Soc. Ent. Fr. 1876, p. 266 (*fide* Semper).
Choaspes gomata, de Nicéville, Jour. As. Soc. Beng. 1883, p. 83, pl. x. fig. 7, ♀ ; Watson, Hesp. Ind. p. 7 (1891).

Female with the upperside purple-brown with a metallic bluish-green shade, which is strongest towards the base of the wings ; underside as in the male, save that the ground-colour of the fore wing is dark purple-brown and there is in each of cells 2 and 3 a suffused oblong pale spot.

A female specimen kindly sent by Herr G. Semper as the *Choaspes lorquini* of his work only differs from a female of *I. gomata* from Java in having the suffused oblong pale spots in cells 2 and 3 of the fore wing below visible also on the upperside.

Hab. Sikkim (*Möller*) ; Java (*Piepers*) ; Philippines (*Semper*).

! Ismene lara. (Plate XX. fig. 14, ♀.)

Ismene gomata, var. *lara*, Leech, Butt. China, &c. p. 634, pl. xxxix. fig. 12 (1894).

With regard to specific validity this insect stands in the same relation to *I. gomata*, Moore, as *I. fergusonii*, de Nicév., does to *I. jaina*, Moore.

Although the sexes resemble the respective sexes of *I. gomata*, both may be

distinguished from that species by their slightly larger size and the much greater development of the pale markings on both upper and under sides.

Hab. Western China (*Pratt*).

! ISMENE AQUILINA.

Ismene aquilina, Speyer, Stett. ent. Zeit. 1879, p. 346; Staudinger, Rom. Mém. sur Lép. vi. p. 214 (1892); Leech, Butt. China, &c. p. 635 (1894).
Ismene jankowskii, Oberthür, Etud. d'Ent. v. p. 23, pl. i. fig. 2 (1880).
Proteides chrysæglia, Butler, P. Z. S. 1881, p. 856.

According to the figure the female of *I. jankowskii*, Ob. (the only sex figured), differs from females in Elwes's collection from Yesso in having the spots on the fore wing above not so pale and the pale postmedian band continued towards the dorsum by two spots in cell 1 *a* divided by the intraneural fold, instead of stopping short at vein 2; but we agree with Staudinger in considering this a synomym of *aquilina*.

Hab. Japan (*Pryer*); Amur (*Christoph*).

HASORA.

Hasora, Moore, Lep. Cey. i. p. 159 (1881); Watson, P Z S. 1893, p. 127. Type *badra*, Moore.
Parata, Moore, t. c. p. 160. Type *chromus*, Cr.

Vein 1 *a* of fore wing angularly bent near the base in both sexes. Tornus of hind wing distinctly produced. Vein 2 of fore wing arising nearer the base in the male than in the female. Pale spots on the fore wing better developed in the female than in the male, and sometimes present in that sex only. Hind tibiæ in the male fringed.

The species known to us we distingush as folliows:—

1 (16). Hind wing below without a pale band from the costa towards the tornus.
2 (13). Fringe of the hind wing not yellow in the tornal region.
3 (8). Hind wing below with a pale spot in the cell, next the transverse vein.
4 (7). Termen of hind wing distinctly concave from vein 3 to vein 1 *b*, the tornus therefore distinctly produced.
5 (6). Hind wing below: pale cell-spot small and roundish, less than half as wide as the cell . . . . . *badra*, Moore.
6 (5). Hind wing below: pale cell-spot large and subquadrate, nearly as wide as the cell, the pale spot in cell 1 *b* correlatively larger . . . . . *gnæus*, Plötz.
7 (4). Termen of hind wing straight from vein 3 to vein 1 *b*; the hind wing therefore simply angulated at the apex of vein 1 *b* . . *anura*, de Nicév.
8 (3). No pale spot in the cell on hind wing below.
9 (12). Sex-mark on the fore wing of the male a broad seam of modified scales passing from the dorsum near the middle to the base of vein 3.

10 (11). Underside brown: fore wing with a large suffused subtriangular dark purple patch adjoining the costa from the middle to about the apical sixth; hind wing with a suffused dark purple median band from the costa towards the dorsum . . . . *celænus*, Cr.

11 (10). Purple suffusion of underside much less evident than in *celænus*, almost absent . . . . . *simplicissima*, Mab.

12 (9). No sex-mark on the fore wing of the male. Hind wing below in the male pale purple, with a pale cell-spot and postmedian band faintly indicated; in the female the purple is replaced by pale green . . . . . *violacea*, Stgr.

13 (2). Fringe of the hind wing yellow in the tornal region.

14 (15). Hind wing below sharply divided just beyond the middle into a dark basal and a paler terminal portion, the latter chrome-yellow from the tornus and passing gradually into pale brown near vein 3 . . . . . *myra*, Hew.

15 (14). Hind wing below brown, with a deep black tornal patch preceded by a pale ray in cell 1 *a* and an oblong pale yellow spot in cell 1 *b* . . . . . *mus*, n. sp.

16 (1). Hind wing below with a pale band from the costa towards the tornus.

17 (24). Pale band on hind wing below interrupted near vein 1 *b*.

18 (21). No sex-mark on fore wing above in the male.

19 (20). No pale point in cell 6 of the fore wing. Pale band on hind wing below narrow bluish white, both its edges somewhat suffused. *mæstissima*, Mao.

20 (19). A pale point in cell 6 of fore wing. Pale band on hind wing below with its inner edge usually more sharply defined than the outer edge . . . . . *chabrona*, Plötz.

21 (18). Male with a sex-mark on fore wing above.

22 (23). Expanse 39–48 mm. Tegumen with two pairs of long curved horns . . . . . *chronus*, Cr.

23 (22). Expanse 46–50 mm. Tegumen without horns . . . . . *inermis*, n. sp.

24 (17). Pale band on hind wing below not interrupted near vein 1 *b*.

25 (30). Pale band on hind wing below white.

26 (29). Hind wing below from the base to the white band purple, more or less tinged with green.

27 (28). Fore wing in the male with a white spot in cell 6. Pale band on hind wing below broad, suffused, tinged with purple on the edges and near the dorsum, reaching the latter in its præapical fourth . . . . . *proximata*, Stgr.

98 (27). No white spot in cell 6 of the fore wing of the male . . . . *proxissima*, n. sp.

29 (25). Hind wing below from the base to the white band plain brown, the white band constricted near vein 3 to about half of its previous width, its outer edge straight . . . . . *borneensis*, n. sp.

30 (25). Pale band on hind wing below yellow.

31 (32). Hind wing above brown, with a broad yellow median band from the costa to the tornus. The pale cell-spot and those in cells 2 and 3 on the fore wing above sharply defined hyaline and contiguous . . . . . *chuza*, Hew.

32 (31). Hind wing above yellow, with a broad brown band along the costa and termen, receding a little from the latter between veins 7 and 1 *b*. The pale cell-spot and those in cells 2 and 3 of the fore wing above suffused, contiguous, not denuded of coloured scales . . . . . *saida*, Hew.

! HASORA BADRA.

Goniloba badra, Moore, P. Z. S. 1865, p. 778.

Hasora badra, Moore, Lep. Cey. i. p. 159, pl. lxv. figs. 4, 4*a* (1881); Watson, Hesp. Ind. p. 12 (1891).

Ismene quadripunctata, Mabille, *sec. spec. comm.*

Hab. Sikkim (*Möller*); Khasia (*Hamilton*); Akyab (*Adamson*); Tavoy (*Tucker*); Nias (*Modigliani*); Pulo Laut, Bali (*Doherty*).

! HASORA GNÆUS.

Ismene gnæus, Plötz, Stett. ent. Zeit. xlv. p. 58 (1884).

Ismene badra, var. *celebica*, Standinger, Iris, ii. p. 138 (1889).

Hasora gnæus, Semper, Schmett. Philipp. p. 290 (1892).

Hab. Mindanao (*Semper*); Mindoro, Palawan (*Staudinger*).

We accept Semper's identification of this form. It is near to *badra*, but the absence of purple gloss on the underside and conspicuously larger spot at base of hind wing below, which seems constant, appear to justify its separation.

! HASORA ANURA.

Hasora anura, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 170, pl. B. figs. 5 ♂, 1 ♀; Watson, Hesp. Ind. p. 12 (1891); Leech, Butt. China, &c. p. 639, pl. xxxix. fig. 10, ♀ (1894).

Hab. Sikkim (*Möller*); Moupin (*Kricheldorf*).

HASORA HADRIA.

Hasora hadria, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1889, p. 172.

Hasora badra, Distant, Rhop. Mal. p. 374, pl. xxxv. fig. 3, ♂ (1886), *fide* de Nicéville.

We have not seen this species, and therefore transcribe the author's account of it:—

"? HESPERIA BADRA, Butler (*nec* Moore), Trans. Linn. Soc. Lond., Zoology, second series, vol. i. p. 554. n. 3 (1877); *Hasora badra*, Distant (*nec* Moore), Rhop. Malay. p. 374. n. 1, pl. xxxv. fig. 3, *male* (1886).

'*Habitat.* Perak, ? Malacca.

"Expanse: ♂, 2·1 inches.

"Description: *Male*. Upperside both wings as in *H. anura*, mihi. Fore wing lacking the subapical yellow dot (this, however, is a trivial character). Underside both wings dull brown, not slightly glossed with purple as in *H. anura*, or strongly so as in *H. badra*, Moore. Hind wing with a small anal lobe bearing a black patch, in *H. anura* there is no black patch or anal lobe, in *H. badra* both are large. This species is probably variable with regard to the presence or absence of a white or greyish spot in the cell of the hind wing on the underside, and a white or greyish streak above the anal angle, as in the two allied species above named; Mr. Distant describing a '*var.*' of this species as lacking these characters. I have not figured this species, as Mr. Distant has done so in his 'Rhopalocera Malayana.' I have described it from a single male from Perak in the collection of the Indian Museum, Calcutta, which Mr. Distant ticketed '*Hasora badra*,' Moore (var.)."

This is, to us, a doubtful species, as the description is contradictory. First we read, "upperside both wings as in *H. anura*," and then a few lines afterwards "hind wing with a small anal lobe bearing a black patch, in *H. anura* there is no black patch or anal lobe." It is true that the species is said to be represented by Distant's figure, but there is no more anal lobe in that figure than in *H. anura* (of which we have specimens), and certainly no black patch near the tornus of the hind wing below.

! HASORA CELÆNUS.

Papilio celænus, Cram. Pap. Exot. iv. p. 393, A, B.
Hasora celænus, de Nicéville, Jour. As. Soc. Beng. 1895, p. 554.

Hab. Amboina, Sumatra (*fide de Nicéville*).

! HASORA SIMPLICISSIMA.

Ismene simplicissima, Mabille, Bull. Soc. Ent. Fr. sér. 5, vol. vi. p. xxv (1876); Staudinger, Iris, ii. p. 138 (1889).
Hasora simplicissima, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 405, pl. Q. figs. 62 ♂, 63 ♀.
Ismene philetas, Plötz, Stett. ent. Zeit. xlv. p. 56 (1884).
Parata simplicissima, Semper, Schmett. Philipp. p. 292 (1892).

Hab. Philippines (*Semper*); Palawan (*Platen, fide Stgr.*); Burmah, Sumatra (*fide de Nicéville*); Bali (*Doherty*).

! HASORA VIOLACEA.

Ismene violaceus, Staudinger, MS.?

On the upperside the female of this species is brown with a violet-purple shade, which is strongest in the apical region of the fore wing and on the lobe of the hind wing. This purple shade is absent or but faintly indicated in the male.

Hab. Amboina (*coll. Stgr.*).

Hasora mæstissima.

Ismene mæstissima, Mabille, Bull. Soc. Ent. Fr. 1876, p. xxv; id. Ann. Soc. Ent. Fr. 1876, p. 263; Staudinger, Iris, ii. p. 136 (1889).

Hab. Mindanao (*Semper*); Palawan (*Platen, fide Stgr.*); Kina Balu (*Waterstradt*).

Hasora vitta.

Hesperia vitta, Butl. Trans. Ent. Soc. 1870, p. 498; id. Lep. Ex. pl. lxix. fig. 9; *cf.* de Nicéville Jour. Bomb. Nat. Hist. Soc. 1895, p. 408.

? *Hasora vitta*, Swinh. Trans. Ent. Soc. 1893, p. 329.

Hab. Sarawak (*Low, fide Butler*).

We have never seen a specimen of this species, which is described and figured as without any apical spot on the fore wing. We have seen a Bornean specimen from Staudinger's collection which has this spot, which is constant in *chabrona* from all localities. There is no other character by which we can distinguish *vitta*, Butler, as described, and we are therefore unable to say whether it is a good species confined to Borneo, as de Nicéville suggests, or a mere aberration of *chabrona*.

! Hasora chabrona.

Ismene chabrona, Plötz, Stett. ent. Zeit. xlv. p. 56 (1884).

Hasora vitta, Distant (*nec* Butl.), Rhop. Mal. p. 375, pl. xxxv. fig. 4, ♂ (1886); Semper, Schmett. Philipp. p. 291 (1892), *sec. spec. comm.*

Hasora chabrona, de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, p. 406.

Hab. Sikkim (*Möller*); Assam, E. Pegu (*Doherty*); Andamans (*de Roepstorff*); Java (*Piepers*); Kina Balu (*Waterstradt*).

Hasora coulteri.

Hasora coulteri, Wood-Mason & de Nicéville, Jour. As. Soc. Beng. 1886, p. 378, pl. xviii. figs. 8 ♂, 8 *a*, 8 *b* ♀; Watson, Hesp. Ind. p. 14 (1891); de Nicéville, Jour. Bomb. Nat. Hist. Soc. 1895, pp. 407, 408.

We have not seen this species. It "is very closely allied to *H. chabrona*; the females of the two species may be distinguished on the underside of the hind wing by both the edges of the discal white band being sharply defined in *H. coulteri*, much blurred in *H. chabrona*. The female of *H. coulteri* possesses the subapical spot to the fore wing, which is lacking in the male, and by the absence of which, together with the discal band, it is distinguished from the same sex of *H. chabrona*." The male has not the male mark as in *chromus*, the upperside of the fore wing being "without spots, but with three ill-defined discal bands composed of modified scales arranged along each side of the submedian nervure, and of the first and second median nervules, and probably concealed by setæ in the living insect."

Hab. Silcuri, Cachar (*Wood-Mason & de Nicéville*).

Hasora chromus. (Plate XXVII. figs. 93, 93 *a*.)

Papilio chromus, Cramer, Pap. Exot. iii. pl. cclxxxiv. fig. E, ♂ (1782).
Ismene malayana, Felder, Wien. ent. Mon. iv. p. 401 (1860); id. Reise Nov., Lep. iii. pl. lxxii. fig. 15 (1866).
Parata chromus, Moore, Lep. Cey. i. p. 161, pl. lxv. figs. 1 *a*, *b* (1881); Watson, Hesp. Ind. p. 16 (1891).
Parata malayana, Watson, t. c. p. 18.
Parata alexis, Moore, l. c. figs. 2 *a*, 2 *b*; Watson, t. c. p. 17.
Hasora chromus, Leech, Butt. China, &c. p. 638, pl. xxxix. fig. 7 (1894).

This species varies much in size; the smallest specimen I have expands 39 millim. The pale band on the hind wing below varies in width and shape; its inner edge is always straight, but its outer edge may be either straight, when the band is narrow (about 1 mm. wide or a mere line), or sinuate, when the band is about 3 mm. wide in its widest part. In Sikkim specimens the brown ground-colour of the hind wing below is washed with metallic purple inclining to green, and in specimens from the Andamans the green colour predominates over the purple, except in the space beyond the pale band (these latter seem to be the true *malayana*, Feld.); in some specimens the greenish-purple colour is scarcely visible in the space beyond the pale band; these differences, however, are not correlated with differences in locality and cannot usefully be made the basis for grouping specimens.

Hab. Sikkim (*Möller*); Khasia (*Elwes*); Burmah (*Doherty*); Andamans (*de Roepstorff*); Ceylon, Bangalore (*Minchin*); Pulo Laut (*Doherty*); Java (*Piepers*).

! Hasora inermis, n. sp. (Plate XX. fig. 16; Plate XXVII. figs. 94, 94 *a*.)

This species closely resembles *H. chromus*, from which it differs by its larger size and the different form of the male genitalia. The male has the sex-mark on the fore wing above and wants the pale point in cell 6 of that wing; the female resembles that sex of *H. chabrona* in having on the fore wing a somewhat crescent-shaped whitish hyaline spot in each of cells 2 and 3, and a whitish point near the basal third of cell 6.

Expanse 46–50 mm.

Hab. Liu Kiu Islands (*Pryer*).

Described from one pair in coll. Elwes. The species can only be distinguished with certainty by the male genitalia.

Hasora proximata.

Ismene proximata, Staudinger, Iris, ii. p. 137 (1889).
Hasora proximata, Semper, Schmett. Philipp. p. 291, pl. xlix. fig. 6, ♀ (1892).

Hab. Mindanao (*Semper*); Palawan, Celebes (*Platen, fide Stgr.*).

Hasora proxissima, n. sp. (Plate XXI. fig. 10, ♂.)

♂. Upperside brown. Underside: fore wing brown, paler along the dorsum, basal third of the disc thickly clothed with coarse darker scales, a purple streak next the upper edge of the cell and a curved series of suffused purple spots beyond the end of the cell from the costa to cell 3: hind wing with a white band from just before the apex of the costa to the dorsum just before the tornus, from the base to the band purple-brown shot with green, beyond the band plain brown; the inner edge of the band is evenly curved (the convexity towards the base of the wing) from the costa to vein 1 *b*, whence it runs straight to the dorsum and is tinged with purple and green, the outer edge is nearly straight from the costa to vein 1 *b*, where it is angulated.

Expanse 41 mm.

Hab. Mindoro (*coll. Stgr.*).

Described from one specimen ex coll. Staudinger.

H. proximata and *H. proxissima* belong to a group, not represented in our region by any species, which we may call the *hurama* group, because they agree with that species from North Australia in having the band on the hind wing below continuous from the costa to the dorsum, whilst in all the specimens in Elwes's coll. of *chabrona* (10) and *chromus* (30) this band, though very variable in breadth, coloration, and distinctness, is interrupted near vein 1 *b* by the black subtornal patch. The differences between *proxissima* and *proximata* are precisely those between *vitta*, Butl., and *chabrona*, Plötz, namely the presence or absence of the apical spot on the fore wing. This may or may not be a constant character, but it is constant in the only species of which we have a good series, namely *chabrona*. All these four species want the sex-mark which is so conspicuous in *H. chromus*, and the round spot at base of hind wing below which distinguishes the *badra* group.

! Hasora borneensis, n. sp. (Plate XX. figs. 8 ♂, 11 ♀.)

♂. Upperside brown, the dorsal half of the hind wing yellow-brown, by reason of the thick clothing of paler hair-scales. Underside: fore wing brown, with a suffused whitish > with its apex to the termen between veins 1 *a* and 3, transverse vein indistinctly pale, and a suffused indistinct macular pale band from beyond the end of the cell towards the tornus as far as cell 2: hind wing brown, with a cream-white band from the preapical fifth of vein 8 to the dorsum just before the tornus, the outer edge of this band is straight from vein 8 to the apical seventh of vein 1 *b*, where the short piece which runs to the dorsum forms an obtuse angle with the remainder, its inner edge is almost straight from vein 8 to the base of vein 3, whence it is irregularly curved outward, and the width of the band is thus reduced to about one-half of its previous width; tornal region somewhat darker than the remainder of the wing, but without any black patch. Fringes pale grey, becoming paler towards the tornus of each wing; the short scales grey-brown. Antennæ brown, the club and apiculus reddish beneath. Body above concolorous with

the wings. Second joint of palpi clothed with grey and black hairs intermixed. Clothing of breast and legs brown, of the abdomen beneath ochreous.

♀. Upperside: fore wing brown, with six yellowish-white hyaline spots—one about as high as wide across the apical third of the cell, its outer edge notched, one about one and a half times as high as wide lying obliquely across cell 2, its outer edge concave, one about one and a half times as high as wide with its outer edge concave across cell 3, and three others small and oblong or suboval, one in each of cells 6, 7, and 8; hind wing dark brown, the dorsal half thickly clothed with bright ochreous hair-scales. Underside: fore wing brown, the costal region as far as the end of the cell paler; the hyaline spots as on the upperside, a subtriangular white spot next the upperside of vein 1 *a* beyond the middle and sometimes a minute suffused white spot in cell 1 *a* next the lower outer angle of the hyaline spot in cell 2. Otherwise as in the male.

Expanse 46–50 mm.

Hab. Kina Balu, Borneo (*Waterstradt*).

Described from two pairs ex coll. Staudinger.

! Hasora myra.

Ismene myra, Hewitson, Exot. Butt. iv., *Ismene*, pl. i. fig. 3, ♂ (1867).

We give a full description of both sexes of this species; the female does not appear to have been described.

♂. Upperside: fore wing warm brown; hind wing brown from the costa about as far as vein 3, thence to the apex ochre-yellow; pubescence of both wings yellow-brown. Underside: fore wing grey-brown, suffusedly paler along the dorsum, beyond the end of the cell, and at the apex: hind wing dark brown from the base to beyond the middle, the limit of that colour well defined and passing from the costa at the level of the apical fourth of vein 8 in a straight line to the apical third of vein 1 *b*, where it is broken by a pale streak along the course of the vein last-named and then passes to the dorsum; the space beyond this dark basal shade is pale brown in the apical region and ochre-yellow in the tornal region, those colours passing gradually the one into the other. Fringe of the fore wing brown, a little paler towards the tornal angle; of the hind wing brown at the apex, passing gradually into ochre-yellow as the tornal angle is approached. Clothing of body and legs yellow-brown, paler on the abdomen.

♀. Fore wing similar to that of the male but with hyaline spots placed as follows:—a small triangular one in the cell near the base of vein 3, one in each of cells 2 and 3, narrow oblique and nearly or quite reaching from side to side of those cells, and one (small and roundish) in each of cells 6 and 7. Hind wing similar to that of the male, but with the yellow portion more extensive and the limits of the brown and yellow colours more sharply defined.

Expanse, ♂ 46 mm., ♀ 52 mm.

Hab. Java (*Piepers*).

! Hasora mus, n. sp. (Plate XX. figs. 2 ♂, 5 ♀.)

♂. Upperside brown, inclining to yellow-brown towards the dorsum of the hind wing; subtornal region of the termen of the hind wing blackish. Underside: paler than the upperside and more decidedly yellow-brown, the middle of the dorsal region of the fore wing dull ochreous; tornus of the hind wing with a large deep black oblong patch from the dorsum nearly to vein 2, preceded by an oblong yellow patch near the apical third of cell 1 *b* and a yellow ray in cell 1 *a*. Fringe of the fore wing grey-brown; of the hind wing grey-brown from the apex to near vein 5, thence gradually becoming yellow. Antennæ blackish, a little paler on the underside. Body above concolorous with the wings. Clothing of second joint of palpi yellow, the lateral bristles black, that of the underside and legs dull ochreous.

♀. Hind wing above blackish brown, the dorsal half thickly clothed with ochreous hair-scales, otherwise like the male.

Expanse $36\frac{1}{2}$–$38\frac{1}{2}$ mm.

Hab. Kina Balu (*Waterstradt*).

Described from a pair sent by Dr. Staudinger now in Elwes's collection. He has other similar specimens, and we have seen in M. Oberthür's collection from Perak what may be the same species.

! Hasora chuza.

Ismene chuza, Hewitson, Exot. Butt. iv., *Ismene*, pl. i. fig. 4 (1867).
Choaspes chuza, Distant, Rhop. Mal. p. 373, pl. xxxiv. fig. 27 (1886).

Hab. Nagas, Upper Burmah, Pulo Laut (*Doherty*); S.E. Borneo (*coll. Schönberg*); Java (*Piepers*).

! Hasora saida.

Ismene saida, Hewitson, *l. c.* fig. 5, ♀.
Parata saida, Semper, Schmett. Philipp. p. 293 (1892).
Parata gentiana, Semper, *l. c., sec. spec. comm.*

Hab. Luzon, Samar, Bohol, Mindanao (*Semper*); Philippines (*Hewitson*).

In the male the spots forming the pale discal band on the fore wing above are pale yellow, opaque, confluent, and suffused at the edges; in the female they are whitish hyaline, angular, and contiguous but sharply defined. Felder's description of his *Ismene gentiana* (Reise Nov., Lep. iii. p. 527) agrees well with this insect, but not so his figures (*t. c.* pl. lxxii. figs. 18, 19).

Bibasis.

Bibasis, Moore, Lep. Ceyl. i. p. 160 (1881); Watson, P. Z. S. 1893, p. 128. Type *sena*, Moore.

Fore wing: vein 1 *a* not distorted near the base. Hind tibiæ in the male thickly scaled above and bearing a pencil of hairs as in *Ismene*.

The clothing of large flattened scales, which imparts to the hind tibiæ of the male in this genus and *Ismene* their fusiform shape, really forms a case in which the tibial pencil is enclosed.

We distinguish three species of this genus, of which the diagnostic characters are as follows:—

1 (4). Pubescence of hind wing above lighter or darker yellow-brown. Upper edge of elasp with a spinose lobe near the base.
2 (3). Outer edge of the pale band on the hind wing below suffused and becoming purplish . . . . . *sena*, Moore.
3 (2). Outer edge of the pale band on the hind wing below as sharply defined as the inner edge . . . . . *uniformis*, n. sp.
4 (1). Pubescence of the hind wing above bright rust-yellow. No spinose lobe on the upper edge of the elasp near the base . . . . . *sambavana*, n. sp.

! Bibasis sena.

Goniloba sena, Moore, P. Z. S. 1865, p. 778.
Bibasis sena, Moore, Lep. Cey. i. p. 160, pl. lxv. figs. 3, 3 *a* (1881); Watson, Hesp. Ind. p. 15 (1891).

Hab. Sikkim (*Möller*); Khasias (*Hamilton*); Nagas (*Doherty*); N. Canara (*Aitken*).

! Bibasis uniformis, n. sp. (Plate XXVII. fig. 95.)

Ismene sena, var. *palawana*, Staudinger, Iris, ii. p. 139 (1889).
Bibasis sena, var. *palawana*, Semper, Schmett. Philipp. p. 292 (1892).

Differs from *B. sena* in having the outer edge of the white band on the hind wing below as sharply defined as the inner edge. Specimens from Java and Kina Balu, Borneo, have more or less whitish-purple suffusion, sometimes forming one or two spots near the end of the cell on the fore wing below, as in *B. sena*; this is entirely wanting in var. *palawana*, Stgr., which also has the pale subdorsal patch on the fore wing below pure white.

Hab. Java (*ex coll. Snellen*); Kina Balu (*Waterstradt*); Palawan (*fide Staudinger*); Luzon (*fide Semper*).

The male genitalia of Javan and Bornean specimens agree with those of *B. sena*, of which this is, doubtless, an insular form.

! Bibasis sambavana, n. sp. (Plate XXVII. fig. 96.)

The single male example of this species is, unfortunately, not in a condition for detailed description, but as it, nevertheless, presents diagnostic characters it has been thought well to point these out. It appears probable that in the colour and pattern of the underside it will prove to resemble *B. sena* rather than *B. uniformis*; but, however this may be, it is readily distinguished from either by the bright rust-yellow hairy

clothing of the inner part of the hind wing above, which in *B. sena* and *B. uniformis* is olive, and the different clasp-form. The latter will be best appreciated from the figures.

Hab. Sambawa (*Doherty*). Type in coll. Elwes.

Badamia.

Badamia, Moore, Lep. Cey. i. p. 156 (1881); Watson, P. Z. S. 1893, p. 128. Type *exclamationis*, Fab.

Fore wing very narrow, its greatest width equal to three-fourths of the length of the termen; hind wing with the termen deeply, almost semicircularly, concave from vein 3 to vein 1 *b*. Vein 2 of fore wing arising near the base of the cell in both sexes. Vein 3 of hind wing arising well before the end of cell. Hind tibiæ in the male fringed.

Badamia exclamationis.

Papilio exclamationis, Fabricius, Syst. Ent. p. 530 (1775).
Papilio ladon, Cramer, Pap. Ex. iii. pl. cclxxxiv. fig. C, ♀.
Ismene thymbron, Felder, Sitzb. Ak. Wiss. Math.-nat. Cl. xl. p. 461, sep. p. 14 (1860).
Badamia exclamationis, Moore, Lep. Cey. i. p. 157, pl. lxvi. figs. 2, *a*, *b* (1881); Watson, Hesp. Ind. p. 3 (1891).

The specimen in coll. Felder labelled in contemporary handwriting "*Ismene thymbron*, Feld.," "Amboina, Doleschall," is a male of *B. exclamationis*, only differing from Indian examples in the slightly warmer tint of the upperside.

Hab. N.W. Himalaya (*Young*); Sikkim, Khasia (*Elwes*); Andamans (*de Roepstorff*); Burmah, Bali, Pulo-Laut (*Doherty*).

Rhopalocampta.

Rhopalocampta, Wallengren, Rhop. Caffr. p. 4; Watson, P. Z. S. 1893, p. 129. Type *forestan*, Cr.
Choaspes, Moore, Lep. Cey. i. p. 158 (1881). Type *benjamini*, Guér.

Watson diagnoses this genus by the absence of vein 5 in the hind wing, but this vein, though perhaps less evident than in the allied genera, is present in the three species which we possess The hind tibiæ in the male bear a long pencil the distal half of which is held close to the tibia by a thick fringe of hair-like scales.

The species known to us we distinguish as follows:—

1 (4). Hind wing above with the subtornal angulation black, more or less widely margined with yellow.
2 (3). Hind wing shorter, vein 1 *b* subequal in length to the dorsum of the fore wing. Pale space near the tornus of the hind wing below orange-red . . . . . *benjamini*, Guér.
3 (2). Hind wing longer, vein 1 *b* about one-fifth longer than the dorsum of the fore wing. Pale space near the tornus of the hind wing below lemon-yellow . . . . . *crawfurdi*, Distant.

4 (1). Hind wing above with the subtornal angulation and the adjacent region entirely yellow.

5 (6). Upperside dark brown with a dull purple shade, pubescence of thorax above dull green; hind wing narrower, tornus more produced . . *subcaudata*, Feld.

6 (5). Upperside brown with brilliant purple reflections, passing into pale green towards the base of the wings, pubescence of thorax above bluish grey; hind wing broader, its tornus less produced . . . . *renidens*, Mab.

! RHOPALOCAMPTA BENJAMINI.

Thymele benjamini, Guérin, Delessert's Souv. Voy. Ind. ii. p. 79, pl. xxii. figs. 2, 2*a* (1843).
Choaspes benjamini, Moore, Lep. Cey. i. p. 159, pl. lxiv. figs. 1, *a*, *b* (1881); Watson, Hesp. Ind. p. 5 (1891).
Rhopalocampta benjamini, Leech, Butt. China &c. p. 641 (1894).

As a rule the sexes may be distinguished by colour, the males being dark greenish and the females bluish at the base of the wings and on the body, but one Japanese male has the tint of the female.

Hab. Kumaon (*Ramsay*); Sikkim (*Möller*); Khasia (*Hamilton*); Nagas (*Doherty*); Nilgiris (*Morris*); Ceylon (*Green*); Japan (*Pryer*, *Leech*); Moupin (*Kricheldorf*).

! RHOPALOCAMPTA CRAWFURDI.

Choaspes crawfurdi, Distant, Rhop. Mal. p. 372, pl. xxxiv. fig. 26 (1886).
Choaspes electra, Stgr. MSS.

Hab. Province Wellesley (*Distant*); Perak, Pulo Laut (*Doherty*); Borneo (*ex coll. Stgr.*); Lawas, N. Borneo, April (*Everett*).

! RHOPALOCAMPTA SUBCAUDATA.

Ismene subcaudata, Felder, Reise Nov., Lep. iii. p. 526, pl. lxxii. figs. 20, 21 (1867).

Hab. Java (*Piepers*); Bali (*Doherty*).

RHOPALOCAMPTA RENIDENS.

Ismene renidens, Mabille, Compte Rendus Soc. Ent. Belg. iv. no. 16, p. lxxviii (1891).
Choaspes renidens, Semper, Schmett. Philipp. p. 289 (1892).

Hab. Philippines (*Semper*).

EXPLANATION OF THE PLATES.

PLATE XVIII.

Fig. 1. *Celænorrhinus balukinus*, n. sp., ♂: p. 117.
Fig. 2. „ *orbiferus*, n. sp., ♂: p. 118.
Fig. 3. „ *inæqualis*, n. sp., ♂: p. 119.
Fig. 4. „ *dentatus*, n. sp., ♂: p. 119.
Fig. 5. „ *fulvescens*, n. sp., ♂: p. 120.

Fig. 6 *Celænorrhinus saturatus*, n. sp., ♂ : p. 120.
Fig. 7. „ *lativittus*, n. sp., ♂ : p. 121.
Fig. 8. „ *maculicornis*, n. sp., ♂ : p. 116
Fig. 9. „ *affinis*, n. sp., ♀ : p. 121.
Fig. 10. „ *batchianus*, n. sp., ♂ : p. 122.
Fig. 11. *Coladenia agnioides*, n. sp., ♂ : p. 128.
Fig. 12. „ *sobrina*, n. sp.. ♂ : p. 126.
Fig. 13. *Satarupa fumosa*, n. sp., ♂ : p. 133.
Fig. 14. *Suastus bipunctus*, Swinh., ♂ : p. 180.
Fig. 15. „ *sala*, Hew., ×$\frac{3}{2}$, ♂ : p. 179.
Fig. 16. *Astictopterus olivascens*, Moore, ♂ : p. 172.
Fig. 17. „ *henrici*, Holland, ♂ : p. 172.
Fig. 18. *Tapena minuscula*, n. sp., ♂ : p. 147.
Fig. 19. „ *hampsoni*, n. sp., ♂ : p. 147.
Fig. 20. *Caprona saraya*, Doherty, ♂ : p. 151.
Fig. 21. *Baracus hampsoni*, ♂ : p. 171.
Fig. 22. *Scobura martini*, n. sp., ♀ : p. 205.
Fig. 23. *Pedestes maculicornis*, n. sp., ♂ : p. 193.
Fig. 24. *Arnetta vindhiana*, Moore, ♂ : p. 199.
Fig. 25. *Pedestes fuscicornis*, n. sp., ♂ : p. 194.
Fig. 26. *Lophoides purpurascens*, n. sp., ♂ : p. 196.
Fig. 27. „ „ ♀ : p. 196.
Fig. 28. „ *binotatus*, n. sp., ♀ : p. 196.

PLATE XIX.

Fig. 1. *Scobura umbrosa*, n. sp., ♀ : p. 207.
Fig. 2. „ *bipunctata*, n. sp., ♀ : p. 207.
Fig. 3. *Aeromachus stigmata*, Moore, ♂, ×$\frac{3}{2}$: p. 189.
Fig. 4. *Sepa cicatrosa*, n. sp., ♂ : p. 212.
Fig. 5. *Parnara bipunctata*, n. sp., ♂ : p. 283.
Fig. 6. *Aeromachus discreta*, Plötz, ♂, ×$\frac{3}{2}$: p. 190.
Fig. 7. „ *inachus*. Mén., ♂, ×$\frac{3}{2}$: p. 190.
Fig. 8. *Sepa guttulifera*, n. sp., ♂ : p. 212.
Fig. 9. *Zographetus ogygioides*, n. sp., ♂ : p. 203.
Fig. 10. *Aeromachus dubius*, n. sp., ♂, ×$\frac{3}{2}$: p. 190.
Fig. 11. „ *indistincta*, Moore, ♂, ×$\frac{3}{2}$: p. 191.
Fig. 12. *Scobura concinna*, n. sp., ♀ : p. 206.
Fig. 13. *Zographetus auriferus*, n. sp., ♂ : p. 203.
Fig. 14. *Telicota prusias*, Feld., ♂ : p. 251.
Fig. 15. „ *simplex*, n. sp., ♂ : p. 253.

Fig. 16. *Scobura fenestrata*, n. sp., ♂: p. 206.
Fig. 17. *Plastingia aurantiaca*, n. sp., ♂: p. 228.
Fig. 18. „ *similis*, n. sp., ♂: p. 230.
Fig. 19. „ *fruhstorferi*, Mab., ♂: p. 227.
Fig. 20. *Gehenna angulifera*, n. sp., ♂: p. 244.
Fig. 21. *Augiades majuscula*, n. sp., ♂: p. 249.
Fig. 22. *Sepa ciliata*, n. sp., ♂: p. 214.
Fig. 23. *Pamphila niveomaculatus*, Ob., ♀, ×$\frac{3}{2}$: p. 167.
Fig. 24. *Aeromachus javanicus*, n. sp., ♂, ×$\frac{3}{2}$: p. 191.
Fig. 25. *Sepa cinnamomea*, n. sp., ♂: p. 213.
Fig. 26. *Telicota insularis*, n. sp., ♂: p. 252.
Fig. 27. „ „ ♀: p. 252.
Fig. 28. *Augiades siva*, Moore, ♂: p. 247.

PLATE XX.

Fig. 1. *Matapa purpurascens*, n. sp., ♂: p. 209.
Fig. 2. *Hasora mus*, n. sp., ♂: p. 304.
Fig. 3. *Notocrypta quadrata*, n. sp., ♂: p. 241.
Fig. 4. *Ismene tuckeri*, n. sp., ♂: p. 293.
Fig. 5. *Hasora mus*, n. sp., ♀: p. 304.
Fig. 6. *Watsonia swinhoei*, n. sp., ♂: p. 220.
Fig. 7. *Tagiades waterstradti*, n. sp., ♂: p. 143.
Fig. 8. *Hasora borneensis*, n. sp., ♂: p. 302.
Fig. 9. *Acerbas nitidifasciata*, n. sp., ♂: p. 216.
Fig. 10. *Tagiades sambavana*, n. sp., ♂: p. 143.
Fig. 11. *Hasora borneensis*, n. sp., ♀: p. 302.
Fig. 12. *Tagiades nestus*, Feld., ♂: p. 145.
Fig. 13. „ *nana*, n. sp., ♂: p. 144.
Fig. 14. *Ismene lara*, Leech, ♀: p. 295.
Fig. 15. *Tagiades titus*, Plötz, ♂: p. 142.
Fig. 16. *Hasora inermis*, n. sp., ♂: p. 301.
Fig. 17. *Gangara sanguinocculus*, Martin, ♂: p. 218.
Fig. 18. *Orthophœtus lidderdali*, Elwes, ♂: p. 105.

PLATE XXI.

Fig. 1. *Halpe debilis*, n. sp., ♂: p. 266.
Fig. 2. „ *knyvetti*, n. sp., ♂: p. 261.
Fig. 3. *Parnara leechii*, n. sp., ♂: p. 274.
Fig. 4. „ *philippina*, H.-S., ♂: p. 276.
Fig. 5. *Halpe debilis*, n. sp., ♀: p. 266.
Fig. 6. „ *majuscula*, n. sp., ♂: p. 264.

Fig. 7. *Halpe fasciata*, n. sp., ♀: p. 262.
Fig. 8. *Parnara philippina*, H.-S., ♀: p. 276.
Fig. 9. *Iambrix latifascia*, n. sp., ♂: p. 182.
Fig. 10. *Hasora proxissima*, n. sp., ♂: p. 302.
Fig. 11. *Parnara hasoroides*, n. sp., ♂: p. 284.
Fig. 12. *Taractrocera nicevillei*, Wats., ♂: p. 184.
Fig. 13. *Halpe beturia*, Hew. (type): p. 263.
Fig. 14. *Pirdana albicornis*, n. sp., ♂: p. 224.
Fig. 15. *Notocrypta inornata*, n. sp., ♂: p. 241.
Fig. 16. *Parnara discreta*, n. sp., ♂: p. 282.
Fig. 17. *Telicota rectifasciata*, n. sp., ♂: p. 254.
Fig. 18. *Ancistroides othonias*, Hew.: p. 222.
Fig. 19. *Parnara robusta*, n. sp., ♂: p. 280.
Fig. 20. *Telicota concinna*, n. sp., ♂: p. 253.
Fig. 21. „ *dilutior*, n. sp., ♂: p. 255.
Fig. 22. *Parnara simillima*, n. sp., ♂: p. 274.
Fig. 23. „ *aurociliata*, n. sp., ♂: p. 278.
Fig. 24. *Taractrocera ceramas*, Hew., ♂: p. 184.
Fig. 25. *Parnara cahira*, Moore, ♀: p. 278.
Fig. 26. „ *subochracea*, Moore, ♂: p. 275.

PLATE XXII.

Fig. 1. *Celænorrhinus dhanada*, Moore; dorsal aspect of the tegumen: p. 119.
Fig. 1 *a*. Do.; lateral aspect of the tegumen.
Fig. 1 *b*. Do.; inner face of left clasp.
Fig. 2. *Celænorrhinus andamanica*, Wood-Mason & de Nicév.; dorsal aspect of the tegumen: p. 119.
Fig. 2 *a*. Do.; inner face of left clasp.
Fig. 3. *Celænorrhinus aurovittata*, Moore; dorsal aspect of the tegumen: p. 122.
Fig. 3 *a*. Do.; inner face of left clasp.
Fig. 4. *Celænorrhinus affinis*, n. sp.; inner face of left clasp: p. 121.
Fig. 5. *Celænorrhinus saturatus*, n. sp.; dorsal aspect of the tegumen: p. 120.
Fig. 5 *a*. Do.; inner face of left clasp.
Fig. 6. *Sarangesa purendra*, Moore; dorsal aspect of the tegumen: p. 124.
Fig. 6 *a*. Do.; inner face of left clasp.
Fig. 7. *Sarangesa dasahara*, Moore; dorsal aspect of the tegumen: p. 124.
Fig. 8. *Sarangesa sati*, de Nicév.; dorsal aspect of the tegumen: p. 124.
Fig. 9. *Coladenia dan*, Fab.; dorsal aspect of the tegumen: p. 127.
Fig. 9 *a*. Do.; inner face of left clasp.
Fig. 10. *Coladenia laxmi*, de Nicév.; inner face of left clasp: p. 126.
Fig. 11. *Coladenia agni*, de Nicév.; inner face of left clasp: p. 127.

Fig. 11 *a*. *Coladenia agni*, de Nicév. ; lateral aspect of the tegumen.
Fig. 12. *Coladenia agnioides*, n. sp. ; inner face of left clasp : p. 128.
Fig. 12 *a*. Do. ; lateral aspect of the tegumen.
Fig. 13. *Tagiades atticus*, Fab. ; inner face of left clasp : p. 142.
Fig. 14. *Tagiades sambavana*, n. sp. ; inner face of left clasp : p. 143.
Fig. 15. *Tapena thwaitesi*, Moore ; inner face of left clasp and dorsal aspect of apex more enlarged : p. 146.
Fig. 16. *Tapena hampsoni*, n. sp. ; inner face of left clasp : p. 147.
Fig. 17. *Tapena minuscula*, n. sp. ; inner face of left clasp : p. 147.
Fig. 18. *Ctenoptilum vasava*, Moore ; inner face of left clasp : p. 148.
Fig. 18 *a*. Do. ; dorsal aspect of left clasp.

PLATE XXIII.

Fig. 19. *Ctenoptilum chinensis*, n. sp. ; inner face of left clasp : p. 148.
Fig. 19 *a*. Do. ; dorsal aspect of left clasp.
Fig. 20. *Caprona ransonnettii*, Feld. ; inner face of left clasp : p. 150.
Fig. 20 *a*. Do. ; inner face of right clasp.
Fig. 21. *Caprona saraya*, Doh. ; inner face of left clasp : p. 151.
Fig. 21 *a*. Do. ; inner face of right clasp.
Fig. 22. *Hesperia proto*, Esp. ; inner face of left clasp : p. 159.
Fig. 23. *Hesperia staudingeri*, Spey. ; inner face of left clasp : p. 159.
Fig. 24. *Hesperia serratulæ*, H.-S. ; inner face of left clasp : p. 160.
Fig. 25. *Hesperia alveus*, Hübn. ; inner face of right clasp : p. 160.
Fig. 25 *a*. Do. ; lateral aspect of the tegumen.
Fig. 25 *b*. *Hesperia onopordi*, Ramb. ; lateral aspect of the tegumen : p. 161.
Fig. 26. *Hesperia speyeri*, Frey. ; inner face of left clasp : p. 160.
Fig. 27. *Hesperia malvoides*, n. sp. ; dorsal aspect of the tegumen : p. 160.
Fig. 27 *a*. Do. ; inner face of left clasp.
Fig. 28. *Hesperia malvæ*, Linn. ; dorsal aspect of the tegumen : p. 161.
Fig. 28 *a*. Do. ; inner face of left clasp.
Fig. 29. *Hesperia melotis*, Dup. ; inner face of right clasp : p. 161.
Fig. 30. *Hesperia phlomidis*, H.-S. ; inner face of left clasp : p. 158.
Fig. 31. *Hesperia geron*, Wats. ; inner face of right clasp : p. 158.
Fig. 32. *Thanaos marloyi*, Bdv. ; inner face of left clasp : p. 164.
Fig. 32 *a*. Do. ; inner face of right clasp.
Fig. 33. *Thanaos pelias*, Leech ; inner face of left clasp : p. 164.
Fig. 33 *a*. Do. ; inner face of right clasp.
Fig. 34. *Thanaos montanus*, Brem. ; dorsal aspect of the tegumen : p. 164.
Fig. 35. *Thanaos leechii*, n. sp. ; dorsal aspect of the tegumen : p. 164.
Fig. 36. *Aeromachus inachus*, Mén. ; inner face of left clasp : p. 190.
Fig. 36 *a*. Do. ; dorsal aspect of the tegumen.

Fig. 37. *Aeromachus jhora*, de Nicév.; inner face of left clasp: p. 190.
Fig. 37 *a*. Do.; dorsal aspect of the tegumen.
Fig. 38. *Aeromachus nanus*, Leech; inner face of left clasp: p. 192.
Fig. 38 *a*. Do.; dorsal aspect of the tegumen.
Fig. 39. *Aeromachus indistincta*, Moore; dorsal aspect of the tegumen: p. 191.
Fig. 39 *a*. *Aeromachus dubius*, n. sp.; dorsal aspect of the tegumen: p. 190.

PLATE XXIV.

Fig. 40. *Pedestes masuriensis*, Moore; inner face of left clasp: p. 193.
Fig. 40 *a*. Do.; inner face of right clasp.
Fig. 40 *b*. Do.; dorsal aspect of the tegumen.
Fig. 40 *c*. Do.; œdeagus with the guards detached.
Fig. 41. *Pedestes pandita*, de Nicév.; inner face of right clasp: p. 193.
Fig. 41 *a*. Do.; dorsal aspect of the tegumen.
Fig. 41 *b*. Do.; œdeagus-guards.
Fig. 42. *Pedestes maculicornis*, n. sp.; dorsal aspect of the tegumen: p. 193.
Fig. 43. *Pedestes fuscicornis*, n. sp.; dorsal aspect of the tegumen: p. 194.
Fig. 44. *Lophoides iapis*, de Nicév.; inner face of left clasp: p. 196.
Fig. 44 *a*. Do.; ventral aspect of the œdeagus.
Fig. 45. *Lophoides purpurascens*, n. sp.; inner face of left clasp: p. 196.
Fig. 45 *a*. Do.; ventral aspect of the œdeagus.
Fig. 46. *Scobura fenestrata*, n. sp.; inner face of left clasp: p. 206.
Fig. 47. *Scobura inarime*, de Nicév.; inner face of left clasp: p. 206.
Fig. 48. *Matapa purpurascens*, n. sp.; inner face of right clasp: p. 209.
Fig. 49. *Matapa druna*, Moore; inner face of right clasp: p. 210.
Fig. 50. *Acerbas martini*, Dist.; inner face of left clasp: p. 216.
Fig. 51. *Acerbas nitidifasciata*, n. sp.; inner face of left clasp: p. 216.
Fig. 52. *Plastingia callineura*, Feld.; inner face of left clasp: p. 226.
Fig. 53. *Plastingia latoia*, Hew.; inner face of left clasp: p. 227.
Fig. 54. *Plastingia margherita*, Doh.; ventral aspect of the tegumen: p. 227.
Fig. 54 *a*. Do.; inner face of left clasp.
Fig. 55. *Plastingia fruhstorferi*, Mab.; ventral aspect of the tegumen: p. 227.
Fig. 55 *a*. Do.; inner face of left clasp.
Fig. 56. *Plastingia similis*, n. sp.; dorsal aspect of the tegumen: p. 230.
Fig. 56 *a*. Do.; inner face of left clasp.
Fig. 57. *Plastingia noemi*, de Nicév.; dorsal aspect of the tegumen: p. 230.
Fig. 57 *a*. Do.; inner face of left clasp.
Fig. 58. *Augiades subhyalina*, Brem.; ventral aspect of the œdeagus: p. 247.
Fig. 59. *Augiades sylvanoides*, Leech; ventral aspect of the œdeagus: p. 247.
Fig. 60. *Augiades ochracea*, Brem.; ventral aspect of the œdeagus, with additional aspect of branch more enlarged: p. 248.

PLATE XXV.

Fig. 61. *Augiades majuscula*, n. sp.; ventral aspect of the œdeagus: p. 248.
Fig. 61 *a*. *Augiades crateis*, Leech; inner face of right clasp: p. 248.
Fig. 61 *b*. *Augiades brahma*, Moore; inner face of right clasp: p. 248.
Fig. 62. *Telicota augias*, Linn.; inner face of right clasp: p. 251.
Fig. 62 *a*. Do.; dorsal aspect of the tegumen.
Fig. 63. *Telicota bambusæ*, Moore; inner face of right clasp: p. 251.
Fig. 64. *Telicota palmarum*, Moore; dorsal aspect of the tegumen: p. 252.
Fig. 64 *a*. Do.; inner face of right clasp.
Fig. 65, *Telicota augiades*, Feld.; dorsal aspect of the tegumen: p. 253.
Fig. 65 *a*. Do.; inner face of right clasp.
Fig. 66. *Telicota gola*, Moore; dorsal aspect of the tegumen: p. 253.
Fig. 66 *a*. Do.; lateral aspect of the tegumen.
Fig. 66 *b*. Do.; inner face of left clasp.
Fig. 67. *Telicota concinna*, n. sp.; dorsal aspect of the tegumen: p. 253.
Fig. 67 *a*. Do.; lateral aspect of the tegumen.
Fig. 67 *b*. Do.; inner face of left clasp.
Fig. 68. *Telicota rectifasciata*, n. sp.; dorsal aspect of the tegumen: p. 254.
Fig. 68 *a*. Do.; inner face of left clasp.
Fig. 69. *Telicota dara*, Koll.; dorsal aspect of the tegumen: p. 254.
Fig. 69 *a*. Do.; inner face of right clasp.
Fig. 70. *Halpe sikkima*, Moore; ventral aspect of the tegumen: p. 264.
Fig. 71. *Halpe homolea*, Hew.; ventral aspect of the tegumen: p. 265.
Fig. 72. *Halpe fusca*, Elwes; ventral aspect of the tegumen: p. 266.
Fig. 73. *Parnara leechii*, n. sp.; inner face of left clasp: p. 274.
Fig. 73 *a*. Do.; ventral aspect of the apex of the tegumen.
Fig. 73 *b*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 73 *c*. Do.; lateral aspect of the tegumen.
Fig. 74. *Parnara oceia*, Hew.; inner face of left clasp: p. 274.
Fig. 74 *a*. Do.; ventral aspect of the apex of the tegumen.
Fig. 74 *b*. Do.; dorsal surface of the apex of the tegumen.
Fig. 74 *c*. Do.; lateral aspect of the tegumen.

PLATE XXVI.

Fig. 75. *Parnara simillima*, n. sp.; inner face of left clasp: p. 274.
Fig. 75 *a*. Do.; ventral aspect of the apex of the tegumen.
Fig. 75 *b*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 75 *c*. Do.; lateral aspect of the tegumen.
Fig. 76. *Parnara guttatus*, Brem.; lateral aspect of the tegumen: p. 281.
Fig. 77. *Parnara pellucida*, Murr.; ventral aspect of the tegumen: p. 282.
Fig. 77 *a*. Do.; lateral aspect of the tegumen.

Fig. 78. *Parnara contigua*, Mab.; ventral aspect of the tegumen: p. 281.
Fig. 78 *a*. Do.; lateral aspect of the tegumen.
Fig. 79. *Parnara eltola*, Hew.; dorsal aspect of the tegumen: p. 282.
Fig. 79 *a*. Do.; inner face of left clasp.
Fig. 79 *b*. Do.; ventral aspect of the œdeagus.
Fig. 80. *Parnara discreta*, n. sp.; dorsal aspect of the tegumen: p. 282.
Fig. 80 *a*. Do.; inner face of left clasp.
Fig. 80 *b*. Do.; ventral aspect of the œdeagus.
Fig. 81. *Parnara colaca*, Moore; lateral aspect of the tegumen: p. 283.
Fig. 82. *Parnara bevani*, Moore; lateral aspect of the tegumen: p. 283.
Fig. 83. *Parnara subochracea*, Moore; ventral aspect of the apex of the tegumen: p. 275.
Fig. 84. *Parnara mathias*, Fab.; ventral aspect of the apex of the tegumen: p. 275.
Fig. 85. *Parnara philippina*, H.-S.; ventral aspect of the apex of the tegumen: p. 276.
Fig. 85 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 85 *b*. Do.; lateral aspect of the tegumen.
Fig. 85 *c*. Do.; inner face of left clasp.
Fig. 86. *Parnara moolata*, Moore; ventral aspect of the apex of the tegumen: p. 278.
Fig. 86 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 86 *b*. Do.; lateral aspect of the tegumen.
Fig. 86 *c*. Do.; inner face of left clasp.
Fig. 87. *Parnara aurociliata*, n. sp.; ventral aspect of the tegumen: p. 278.
Fig. 87 *a*. Do.; dorsal aspect of the tegumen.
Fig. 87 *b*. Do.; lateral aspect of the tegumen.
Fig. 87 *c*. Do.; inner face of left clasp.

PLATE XXVII.

Fig. 88. *Parnara robusta*, n. sp.; ventral aspect of the tegumen: p. 280.
Fig. 88 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 88 *b*. Do.; lateral aspect of the tegumen.
Fig. 88 *c*. Do.; inner face of left clasp.
Fig. 89. *Parnara austeni*, Moore; ventral aspect of the apex of the tegumen: p. 280.
Fig. 89 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig 89 *b*. Do.; lateral aspect of the tegumen.
Fig. 89 *c*. Do.; inner face of left clasp.
Fig. 90. *Parnara kumara*, Moore; ventral aspect of the apex of the tegumen: p. 276.
Fig. 90 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 90 *b*. Do.; lateral aspect of the tegumen.
Fig. 90 *c*. Do.; inner face of left clasp.
Fig. 91. *Parnara cahira*, Moore; ventral aspect of the apex of the tegumen: p. 278.
Fig. 91 *a*. Do.; dorsal aspect of the apex of the tegumen.
Fig. 91 *b*. Do.; lateral aspect of the tegumen.
Fig. 91 *c*. Do.; inner face of left clasp.

Horace Knight ad nat lith

West, Newman chromo

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West, Newman chromo

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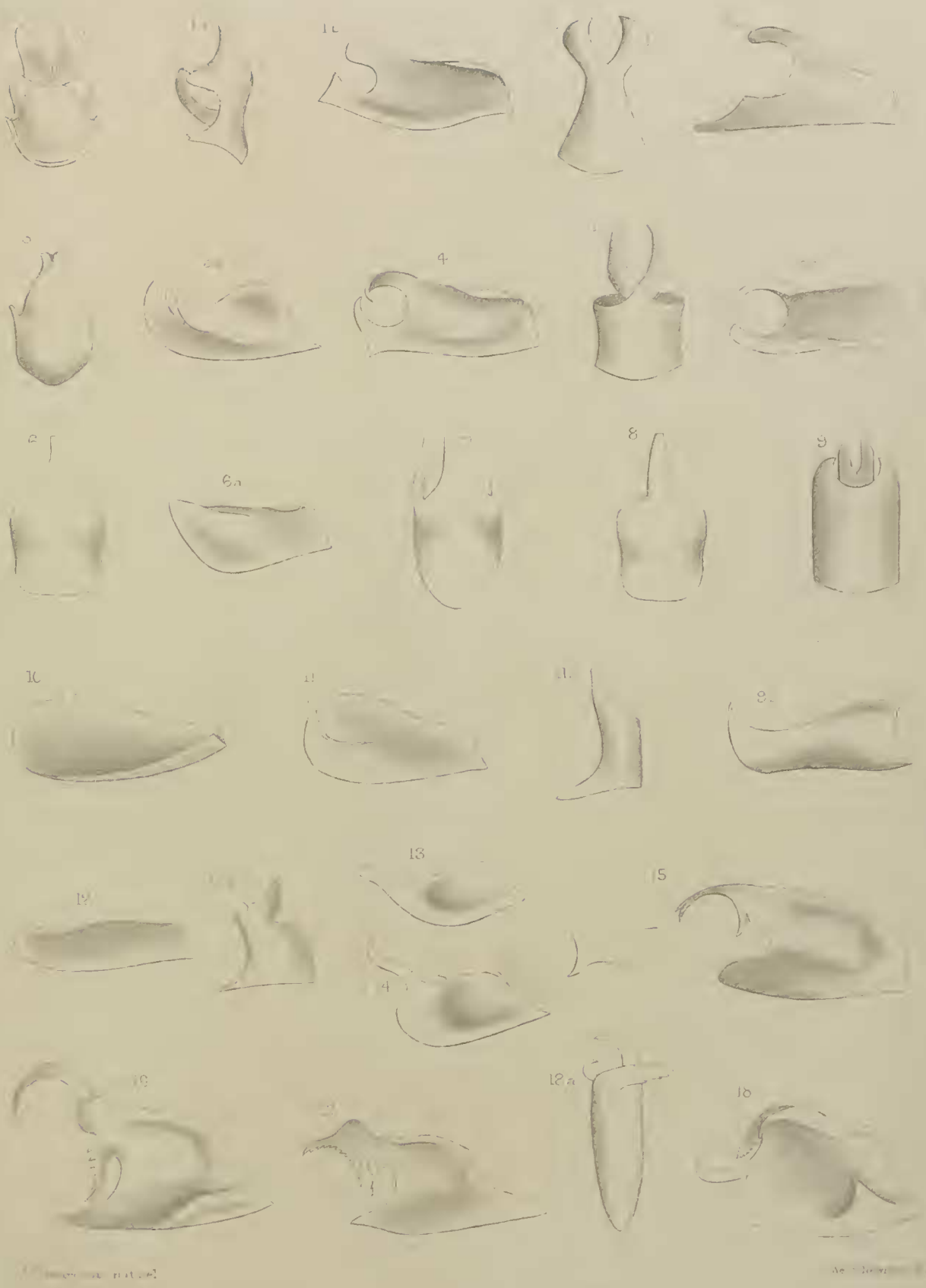

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